



SITOP UPS500S/DC/DC24V/15A/5KWS/EX

SITOP UPS500S EX maintenance-free uninterruptible power supply with USB interface basic device 5 kW input: 24 V DC output: 24 V DC/15 A degree of protection IP20

| Input                                                                       |                                                                                                              |
|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| supply voltage at DC rated value                                            | 24 V                                                                                                         |
| input voltage                                                               | DC 22 ... 29 V                                                                                               |
| 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                       | 15.2 A; + approx. 2.3 A with empty energy storage (capacitor)                                                |
| Mains buffering                                                             |                                                                                                              |
| type of energy storage                                                      | with capacitors                                                                                              |
| design of the mains power cut bridging-connection                           | 15 A for 9 s or 10 A for 15 s or 5 A for 31 s or 2 A for 76 s; longer buffering times with expansion modules |
| energy content of energy storage                                            | 5 kW.s                                                                                                       |
| charging current                                                            | 1 A, 2 A                                                                                                     |
| adjustable charging current maximum note                                    | factory setting approx. 1 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                                                  | $24\text{ V} \pm 3\%$                                                                                        |
| startup delay time typical                                                  | 0.6 s                                                                                                        |
| voltage increase time of the output voltage typical                         | 25 ms                                                                                                        |
| output voltage in buffering mode at DC                                      | 24 ... 24.7 V                                                                                                |
| output current                                                              |                                                                                                              |
| • rated value                                                               | 15 A                                                                                                         |
| • in normal operation                                                       | 0 ... 15 A                                                                                                   |
| • in buffering mode                                                         | 0 ... 15 A                                                                                                   |
| peak current                                                                | 25 A                                                                                                         |
| property of the output short-circuit proof                                  | Yes                                                                                                          |
| supplied active power typical                                               | 360 W                                                                                                        |
| Efficiency                                                                  |                                                                                                              |
| efficiency in percent                                                       |                                                                                                              |
| • at rated output voltage for rated value of the output current typical     | 97.5 %                                                                                                       |
| power loss [W]                                                              |                                                                                                              |
| • at rated output voltage for rated value of the output current typical     | 9 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                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>for normal operation</li> </ul>                          | Normal operation: LED green (OK), floating changeover contact "OK/Bat" 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"; 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 buffer end after expiry of 80% of the available buffer time: 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                                                                  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| design of the interface                                                                         | USB                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Safety                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| galvanic isolation between input and output                                                     | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| operating resource protection class                                                             | Class III                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| protection class IP                                                                             | IP20                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Approvals                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 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>                                   | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>CSA approval</li> </ul>                                  | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>cCSAus, Class 1, Division 2</li> </ul>                   | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>ATEX</li> </ul>                                          | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| certificate of suitability                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>IECEX</li> </ul>                                         | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| certificate of suitability                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>shipbuilding approval</li> </ul>                         | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| shipbuilding approval                                                                           | available soon                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Marine classification association                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> </ul> | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>DNV GL</li> </ul>                                        | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| EMC                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| environmental conditions                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| ambient temperature                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>during operation</li> </ul>                              | 0 ... 60 °C; with natural convection                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>during transport</li> </ul>                              | -40 ... +70 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>during storage</li> </ul>                                | -40 ... +70 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| environmental category according to IEC 60721                                                   | Climate class 3K3, 5 ... 95% no condensation                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Mechanics                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 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 1 ... 4 mm²/17 ... 11 AWG                                                                                                                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>at output</li> </ul>                                     | 24 V DC: 4 screw terminals for 1 ... 4 mm²/17 ... 11 AWG                                                                                                                                                                                                                                                                                                                                                                                                              |
| <ul style="list-style-type: none"> <li>for rechargeable battery module</li> </ul>               | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <ul style="list-style-type: none"> <li>for control circuit and status message</li> </ul>        | 10 screw terminals for 0.5 ... 2.5 mm²/20 ... 13 AWG                                                                                                                                                                                                                                                                                                                                                                                                                  |
| width of the enclosure                                                                          | 120 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> </ul>                                          | 0 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>right</li> </ul>                                         | 0 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| net weight                                                                                      | 1 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                                                                          | Extension module SITOP UPS501S                                                                                                                                                                                                                                                                                                                                                                                                                                        |

|                                         |                                                                                                   |
|-----------------------------------------|---------------------------------------------------------------------------------------------------|
| MTBF at 40 °C                           | 459 137 h                                                                                         |
| reference code according to IEC 81346-2 | RB                                                                                                |
| other information                       | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |

