



SITOP BAT1600/Battery module/24V/12AH

SITOP BAT1600 24 V DC 12 Ah Pb battery module with maintenance- free closed lead-acid battery for SITOP UPS1600

| General information                                         |                                                                                                               |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Technical Product Detail Page                               | <a href="https://i.siemens.com/1P6EP4135-0GE00-0AY0">https://i.siemens.com/1P6EP4135-0GE00-0AY0</a>           |
| electrical data                                             |                                                                                                               |
| end-of-charge voltage at DC                                 |                                                                                                               |
| • at -10 °C recommended                                     | 28 V                                                                                                          |
| • at 0 °C recommended                                       | 28 V                                                                                                          |
| • at 10 °C recommended                                      | 27.8 V                                                                                                        |
| • at 20 °C recommended                                      | 27.3 V                                                                                                        |
| • at 30 °C recommended                                      | 26.8 V                                                                                                        |
| • at 40 °C recommended                                      | 26.6 V                                                                                                        |
| • at 50 °C recommended                                      | 26.3 V                                                                                                        |
| output                                                      |                                                                                                               |
| battery capacity                                            | 12 A·h                                                                                                        |
| output current rated value                                  | 40 A                                                                                                          |
| output current in buffering mode maximum                    | 40 A                                                                                                          |
| peak current                                                | 120 A; for 30 ms                                                                                              |
| charging current maximum                                    | 3 A                                                                                                           |
| output voltage at DC rated value                            | 24 V                                                                                                          |
| interfaces                                                  |                                                                                                               |
| communication function                                      | Yes                                                                                                           |
| protection and monitoring                                   |                                                                                                               |
| design of short-circuit protection                          | 50A / 32V Maxi flat fuse                                                                                      |
| design of the overload protection                           | Valve control                                                                                                 |
| display version for normal operation                        | Three-color: green = Buffer ready; yellow = Buffer endangered; red = Buffer not possible                      |
| safety                                                      |                                                                                                               |
| operating resource protection class                         | Class III                                                                                                     |
| protection class IP                                         | IP20                                                                                                          |
| standards, specifications, approvals                        |                                                                                                               |
| certificate of suitability                                  |                                                                                                               |
| • CE marking                                                | Yes                                                                                                           |
| • UL approval                                               | Yes; cULus-Listed (UL 61010-1, UL61010-2-201 , CSA C22.2 No. 61010-1, CSA C22.2 NO 61010-2-201), File E143289 |
| • UKCA marking                                              | Yes                                                                                                           |
| type of certification CB-certificate                        | Yes                                                                                                           |
| standards, specifications, approvals hazardous environments |                                                                                                               |
| certificate of suitability                                  |                                                                                                               |
| • ATEX                                                      | No                                                                                                            |
| standards, specifications, approvals marine classification  |                                                                                                               |

|                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| shipbuilding approval                                                                                                                                                                                                                                          | Yes                                                                                                                                                                                                                                                                                                                                                                                                           |
| Marine classification association                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                               |
| <ul style="list-style-type: none"> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> <li>Det Norske Veritas (DNV)</li> </ul>                                                                                                                              | Yes<br>in preparation                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>standards, specifications, approvals Environmental Product Declaration</b>                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                               |
| Environmental Product Declaration                                                                                                                                                                                                                              | Yes                                                                                                                                                                                                                                                                                                                                                                                                           |
| global warming potential [CO <sub>2</sub> eq]                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                               |
| <ul style="list-style-type: none"> <li>total</li> <li>during manufacturing</li> <li>during operation</li> <li>after end of life</li> </ul>                                                                                                                     | 40.18 kg<br>22.2 kg<br>14 kg<br>1.17 kg                                                                                                                                                                                                                                                                                                                                                                       |
| <b>ambient conditions</b>                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                               |
| ambient condition                                                                                                                                                                                                                                              | For storage, mounting and operation of lead-acid batteries, the relevant DIN/VDE regulations or country-specific regulations (e.g. VDE 0510 Part 2/EN 50272-2) must be observed. You must ensure that the battery site is sufficiently ventilated. Possible sources of ignition must be at least 50 cm away.                                                                                                  |
| ambient temperature                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                               |
| <ul style="list-style-type: none"> <li>during operation</li> <li>during transport</li> <li>during storage</li> </ul>                                                                                                                                           | -15 ... +50 °C<br>-20 ... +50 °C<br>-20 ... +40 °C                                                                                                                                                                                                                                                                                                                                                            |
| relative temporary capacity loss at 20 °C in a month typical                                                                                                                                                                                                   | 3 %                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>service life</b>                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                               |
| service life of energy storage                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                               |
| <ul style="list-style-type: none"> <li>typical</li> <li>at 20 °C typical</li> <li>at 30 °C typical</li> <li>at 40 °C typical</li> <li>at 50 °C typical</li> </ul>                                                                                              | capacity falls to 80 % of original capacity (according to EUROBAT)<br>4 a<br>2 a<br>1 a<br>0.5 a                                                                                                                                                                                                                                                                                                              |
| note                                                                                                                                                                                                                                                           | Along with the storage and operating temperature, other factors such as the duration of the storage period and the charge status during storage have a decisive influence on the possible useful life. Batteries should therefore be stored as briefly as possible, always fully charged, and within the temperature range 0 to +20 °C.                                                                       |
| <b>connection method</b>                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                               |
| type of electrical connection                                                                                                                                                                                                                                  | screw terminal                                                                                                                                                                                                                                                                                                                                                                                                |
| <ul style="list-style-type: none"> <li>for UPS module</li> <li>for control circuit and status message</li> </ul>                                                                                                                                               | 1 screw terminal each for 0.5 ... 16 mm <sup>2</sup> for + BAT and - BAT<br>1 screw terminal each for 0.2 ... 2.5 mm <sup>2</sup>                                                                                                                                                                                                                                                                             |
| <b>mechanical data</b>                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                               |
| width × height × depth of the enclosure                                                                                                                                                                                                                        | 225 × 156 × 138 mm                                                                                                                                                                                                                                                                                                                                                                                            |
| installation width × mounting height                                                                                                                                                                                                                           | 225 mm × 256 mm                                                                                                                                                                                                                                                                                                                                                                                               |
| required spacing                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                               |
| <ul style="list-style-type: none"> <li>top</li> <li>bottom</li> <li>left</li> <li>right</li> </ul>                                                                                                                                                             | 50 mm<br>50 mm<br>0 mm<br>0 mm                                                                                                                                                                                                                                                                                                                                                                                |
| fastening method                                                                                                                                                                                                                                               | Wall mounting                                                                                                                                                                                                                                                                                                                                                                                                 |
| <ul style="list-style-type: none"> <li>DIN-rail mounting</li> <li>S7 rail mounting</li> <li>wall mounting</li> </ul>                                                                                                                                           | No<br>No<br>Yes                                                                                                                                                                                                                                                                                                                                                                                               |
| net weight                                                                                                                                                                                                                                                     | 10.2 kg                                                                                                                                                                                                                                                                                                                                                                                                       |
| number of cells                                                                                                                                                                                                                                                | 2                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>accessories</b>                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                               |
| product component included                                                                                                                                                                                                                                     | 2x Maxi Fuse 50 A/32 V                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>further information internet links</b>                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                               |
| internet link                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                               |
| <ul style="list-style-type: none"> <li>to website: Industry Mall</li> <li>to web page: selection aid TIA Selection Tool</li> <li>to web page: power supplies</li> <li>to website: CAX-Download-Manager</li> <li>to website: Industry Online Support</li> </ul> | <a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a><br><a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a><br><a href="https://siemens.com/sitop">https://siemens.com/sitop</a><br><a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a><br><a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a> |

| additional information |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| other information      | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| security information   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| security information   | 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 <a href="http://www.siemens.com/cybersecurity-industry">www.siemens.com/cybersecurity-industry</a> . 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 <a href="https://www.siemens.com/cert">https://www.siemens.com/cert</a> . (V4.7) |

| Classifications |        |         |                |
|-----------------|--------|---------|----------------|
|                 |        | Version | Classification |
|                 | eClass | 16      | 27-05-04-03    |
|                 | eClass | 14      | 27-05-04-03    |
|                 | eClass | 12      | 27-05-04-03    |
|                 | eClass | 9.1     | 27-05-04-03    |
|                 | eClass | 9       | 27-05-04-03    |
|                 | eClass | 8       | 27-05-04-03    |
|                 | eClass | 7.1     | 27-05-04-03    |
|                 | eClass | 6       | 27-05-04-90    |
|                 | ETIM   | 10      | EC000357       |
|                 | ETIM   | 9       | EC000357       |
|                 | ETIM   | 8       | EC000357       |
|                 | ETIM   | 7       | EC000357       |

| Approvals Certificates   |                 |
|--------------------------|-----------------|
| General Product Approval | Dangerous goods |



[Manufacturer Declaration](#)



EG-Konf.



[Dangerous goods information](#)

| Dangerous goods | Environment |
|-----------------|-------------|
|-----------------|-------------|

[Dangerous goods information](#)



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