**REXC series**

**REXC-500**

### Feature
- Design life 20 years
- Combine the advantage of lead acid battery and supercapacitor
- Ideal for PSOC cycle application
- High power, rapid charge/discharge
- Reduce sulfation of negative plate, excellent recharge acceptance performance
- Waterproof, anti-salt treatment, shockproof module installation design
- Comply with IEC60896, IEC61427 etc. standard

### Application
- Renewable energy storage
- Smart power grids and microgrids system
- Distributed energy storage system
- Hybrid energy storage system such as solar and wind
- Home energy storage system
- Solar power generation grid/off-grid energy storage system
- Emergency lighting system
- Generator and battery hybrid energy system
- Other standby, cycling system

### Dimension (mm)

- Length: 231 mm
- Width: 155 mm
- Height: 408 mm

### Parameter

**Nominal Voltage**
- 2V

**Capacity**
- Nominal: 500Ah (10hr to 1.80V/cell @25 ℃)
- 600Ah (120hr to 1.85V/cell @25 ℃)

**Typical Weight**
- 39kg

**Internal Resistance**
- Approx 0.28mΩ

**Self Discharge**
- Residual capacity is above 90% after 90 days storage (25 ℃)

**Temperature Ranges**
- Operation (recommended): 15 ℃ ~ 25 ℃
- Operation (maximum): -40 ℃ ~ 50 ℃

**Max. charging current**
- 150A

**Max. constant charging current**
- 100A

**Charge Voltage**
- Floating: 2.25V (25 ℃)
- Equalizing/Cycle: 2.30V (25 ℃)

**Terminal**
- M8 embedded copper

**Terminal Hardware Torque**
- >10N·m

### Constant Current Discharge Characteristics

<table>
<thead>
<tr>
<th>End voltage per cell</th>
<th>1hr</th>
<th>3hr</th>
<th>5hr</th>
<th>8hr</th>
<th>10hr</th>
<th>24hr</th>
<th>48hr</th>
<th>72hr</th>
<th>120hr</th>
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</thead>
<tbody>
<tr>
<td>1.75V</td>
<td>282.7</td>
<td>129.9</td>
<td>90.3</td>
<td>63.2</td>
<td>52.7</td>
<td>23.5</td>
<td>12.1</td>
<td>8.30</td>
<td>5.30</td>
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<tr>
<td>1.80V</td>
<td>264.9</td>
<td>126.0</td>
<td>88.2</td>
<td>62.0</td>
<td>51.5</td>
<td>23.1</td>
<td>11.9</td>
<td>8.10</td>
<td>5.20</td>
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<tr>
<td>1.83V</td>
<td>248.0</td>
<td>121.9</td>
<td>86.1</td>
<td>60.9</td>
<td>50.4</td>
<td>22.6</td>
<td>11.6</td>
<td>7.90</td>
<td>5.10</td>
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<tr>
<td>1.85V</td>
<td>239.1</td>
<td>119.5</td>
<td>85.2</td>
<td>60.2</td>
<td>50.1</td>
<td>22.3</td>
<td>11.5</td>
<td>7.90</td>
<td>5.00</td>
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<tr>
<td>1.88V</td>
<td>229.0</td>
<td>117.1</td>
<td>84.3</td>
<td>59.5</td>
<td>49.7</td>
<td>22.1</td>
<td>11.4</td>
<td>7.80</td>
<td>4.90</td>
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### Discharge Data with Constant Power

<table>
<thead>
<tr>
<th>End voltage per cell</th>
<th>15min</th>
<th>30min</th>
<th>1hr</th>
<th>2hr</th>
<th>3hr</th>
<th>4hr</th>
<th>5hr</th>
<th>6hr</th>
<th>8hr</th>
<th>10hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.75V</td>
<td>1233</td>
<td>894.0</td>
<td>571.0</td>
<td>374.3</td>
<td>267.3</td>
<td>219.3</td>
<td>186.3</td>
<td>160.4</td>
<td>122.6</td>
<td>103.0</td>
</tr>
<tr>
<td>1.80V</td>
<td>1160</td>
<td>864.2</td>
<td>557.7</td>
<td>367.4</td>
<td>257.8</td>
<td>212.2</td>
<td>181.1</td>
<td>155.6</td>
<td>119.5</td>
<td>101.4</td>
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<tr>
<td>1.83V</td>
<td>1092</td>
<td>817.9</td>
<td>537.9</td>
<td>352.5</td>
<td>251.6</td>
<td>209.1</td>
<td>177.3</td>
<td>150.9</td>
<td>117.1</td>
<td>99.4</td>
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<td>1.85V</td>
<td>1020</td>
<td>774.0</td>
<td>507.2</td>
<td>337.6</td>
<td>244.2</td>
<td>204.1</td>
<td>172.6</td>
<td>147.4</td>
<td>115.6</td>
<td>97.5</td>
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<td>1.88V</td>
<td>948</td>
<td>733.2</td>
<td>476.6</td>
<td>313.8</td>
<td>235.8</td>
<td>197.1</td>
<td>167.0</td>
<td>142.1</td>
<td>112.4</td>
<td>95.1</td>
</tr>
</tbody>
</table>
Discharge curve at different rate (25°C)

Charge curve (25°C)

Capacity vs OCV curve

Residue capacity vs storage time

Capacity vs temperature curve

Design life vs temperature

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Subject to revision without prior notice