Vision CT VRLA battery is specially designed for telecom systems. With compliance to the most rigorous international standards of IEC60896-21/22, BS6290-4, Eurobat Guide, VISION CT battery are recognized as the ideal choice for telecom power backup. Front access terminal design enables easy installation and monitoring. The battery case and cover are made from V0 class flame retardant ABS & with thick walls, offer the battery with high mechanical strength and safety service features.

**Battery Construction**

<table>
<thead>
<tr>
<th>Component</th>
<th>Positive plate</th>
<th>Negative plate</th>
<th>Container</th>
<th>Cover</th>
<th>Safety valve</th>
<th>Terminal</th>
<th>Separator</th>
<th>Electrolyte</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw material</td>
<td>Lead dioxide</td>
<td>Lead</td>
<td>ABS</td>
<td>ABS</td>
<td>Rubber</td>
<td>Copper</td>
<td>Fiberglass</td>
<td>Sulfuric acid</td>
</tr>
</tbody>
</table>

**General Features**

- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- UL-recognized component.
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Long service life, float or cyclic applications.
- Maintenance-free operation.
- Low self discharge.
- Case and cover available in both standard and flame retardant ABS.

**Performance Characteristics**

- Nominal Voltage: 12V
- Number of cell: 6
- Design Life: 10 years
- Nominal Capacity: 77°F (25°C)
  - 10 hour rate (10A, 10.8V): 100Ah
  - 5 hour rate (17.2A, 10.5V): 86.0Ah
  - 1 hour rate (63.5A, 9.6V): 63.5Ah
- Internal Resistance:
  - Fully Charged battery: 77°F (25°C) ≤ 6.3mOhms
- Self-Discharge: 3% of capacity declined per month at 20°C (average)
- Operating Temperature Range
  - Discharge: -20~60°C
  - Charge: -10~60°C
  - Storage: -20~60°C
- Max. Discharge Current: 77°F (25°C) 900A (5s)
- Short Circuit Current: 1700A
- Charge Methods: Constant Voltage Charge 77°F (25°C)
  - Cycle use: 2.40-2.45VPC
  - Maximum charging current: 30A
  - Temperature compensation: -30mV/°C
- Discharge Constant Current (Amperes at 77°F 25°C)

<table>
<thead>
<tr>
<th>End Point</th>
<th>10min</th>
<th>15min</th>
<th>30min</th>
<th>45min</th>
<th>1h</th>
<th>3h</th>
<th>5h</th>
<th>10h</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.60V</td>
<td>218</td>
<td>176</td>
<td>110</td>
<td>78.8</td>
<td>63.5</td>
<td>27.8</td>
<td>18.5</td>
<td>10.1</td>
</tr>
<tr>
<td>1.65V</td>
<td>201</td>
<td>165</td>
<td>106</td>
<td>76.4</td>
<td>61.5</td>
<td>27.1</td>
<td>18.1</td>
<td>10.1</td>
</tr>
<tr>
<td>1.70V</td>
<td>185</td>
<td>154</td>
<td>102</td>
<td>73.9</td>
<td>59.5</td>
<td>26.4</td>
<td>17.8</td>
<td>10.0</td>
</tr>
<tr>
<td>1.75V</td>
<td>169</td>
<td>143</td>
<td>97</td>
<td>71.6</td>
<td>57.5</td>
<td>25.7</td>
<td>17.2</td>
<td>10.0</td>
</tr>
<tr>
<td>1.80V</td>
<td>153</td>
<td>132</td>
<td>93</td>
<td>68</td>
<td>55.1</td>
<td>24.6</td>
<td>16.8</td>
<td>10.0</td>
</tr>
</tbody>
</table>

**Discharge Constant Power (Watts at 77°F 25°C)**

<table>
<thead>
<tr>
<th>End Point</th>
<th>0min</th>
<th>5min</th>
<th>10min</th>
<th>15min</th>
<th>20min</th>
<th>30min</th>
<th>45min</th>
<th>1h</th>
<th>2h</th>
<th>3h</th>
<th>5h</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.60V</td>
<td>538</td>
<td>380</td>
<td>319</td>
<td>206</td>
<td>150</td>
<td>121</td>
<td>70.1</td>
<td>52.3</td>
<td>36.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.65V</td>
<td>528</td>
<td>358</td>
<td>303</td>
<td>199</td>
<td>144</td>
<td>117</td>
<td>68.1</td>
<td>51.2</td>
<td>35.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.70V</td>
<td>517</td>
<td>337</td>
<td>286</td>
<td>186</td>
<td>140</td>
<td>115</td>
<td>66.4</td>
<td>50.1</td>
<td>35.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.75V</td>
<td>506</td>
<td>316</td>
<td>270</td>
<td>162</td>
<td>134</td>
<td>110</td>
<td>63.1</td>
<td>49.1</td>
<td>35.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.80V</td>
<td>495</td>
<td>294</td>
<td>254</td>
<td>157</td>
<td>128</td>
<td>103</td>
<td>62.3</td>
<td>47.8</td>
<td>34.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Note) The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values. All data shall be changed without notice. Vision reserves the right to explain and update the information contained hereinto.

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#### Discharge characteristic (25°C)

![Discharge characteristic graph]

#### Relationship between charging voltage and temperature

![Relationship graph]

#### Life characteristics of standby use

![Life characteristics graph]

#### Temperature effects on float life

![Temperature effects graph]

#### Charge characteristic curve

![Charge characteristic graph]

#### Self-discharge characteristic

![Self-discharge graph]

#### Cycle service life in relation to depth of discharge

![Cycle service life graph]

#### Temperature effects on capacity

![Temperature effects graph]