MHB MN Series—Deep Cycle SLA Battery

- High performance, completely maintenance-free, low self-discharge
- 100% precise quality testing, stable quality and high reliable performance
- Unique grid alloy formula and updated manufacturing technique
- Floating & standby use: up to 10 years
- Cycle use 1: Up to 350 cycles at 100% DOD
- Cycle use 2: Up to 650 cycles at 50% DOD

Application:

- Telecommunications
- UPS/EPS
- DC Power Supply
- Solar system
- Wind Power System
- Auto Control System

Construction:

- Component .......Raw material
- Positive .........Lead dioxide
- Negative ........Lead
- Container ........ABS
- Cover ........ABS
- Sealant .........Epoxy
- Safety valve .... Rubber
- Terminal .......Copper/Pb
- Separator ........Fiber glass
- Electrolyte ...... Sulfuric acid

Specification:

<table>
<thead>
<tr>
<th>Battery Model</th>
<th>MN 33-12</th>
<th>12V33AH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designed Floating Life</td>
<td>Up to 10 Years</td>
<td></td>
</tr>
<tr>
<td>Capacity (25°C)</td>
<td>20HR(1.730A,10.8V)</td>
<td>10HR(3.300A,10.8V)</td>
</tr>
<tr>
<td>34.60 AH</td>
<td>33.00 AH</td>
<td>28.95 AH</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Length</td>
<td>Width</td>
</tr>
<tr>
<td>196 mm</td>
<td>133 mm</td>
<td>161 mm</td>
</tr>
<tr>
<td>Approx. Weight</td>
<td>10.80Kg ±3%</td>
<td></td>
</tr>
<tr>
<td>Internal Resistance</td>
<td>Full charged at 25°C: ≤13.80 mΩ</td>
<td></td>
</tr>
<tr>
<td>Self Discharge</td>
<td>2% of capacity declined per month at (25°C)</td>
<td></td>
</tr>
<tr>
<td>Capacity Affected by Temp.(20HR)</td>
<td>40°C</td>
<td>25°C</td>
</tr>
<tr>
<td>102%</td>
<td>100%</td>
<td>85%</td>
</tr>
<tr>
<td>Charge Voltage(25°C)</td>
<td>Cycle use</td>
<td>Float use</td>
</tr>
<tr>
<td>14.40-15.00V(-30mV/°C), max. Current: 8.00A</td>
<td>13.50-13.80V (-20mV/°C)</td>
<td></td>
</tr>
</tbody>
</table>

FUJIAN MINHUA POWER SOURCE CO., LTD.

www.mhb-battery.com  sales@mhb-battery.com  info@mhb-battery.com
### Constant Current Discharge (CC, Unit: A) at 25°C (77°F)

<table>
<thead>
<tr>
<th>F.V./Time</th>
<th>5Min</th>
<th>10Min</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>10Hr</th>
<th>20Hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.80V/Cell</td>
<td>102.1</td>
<td>69.52</td>
<td>47.60</td>
<td>28.95</td>
<td>17.74</td>
<td>11.07</td>
<td>8.61</td>
<td>6.77</td>
<td>5.74</td>
<td>3.83</td>
<td>3.30</td>
<td>1.73</td>
</tr>
<tr>
<td>1.75V/Cell</td>
<td>103.0</td>
<td>70.11</td>
<td>48.00</td>
<td>29.19</td>
<td>17.89</td>
<td>11.16</td>
<td>8.68</td>
<td>6.83</td>
<td>5.79</td>
<td>3.87</td>
<td>3.35</td>
<td>1.75</td>
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<tr>
<td>1.70V/Cell</td>
<td>105.6</td>
<td>71.86</td>
<td>49.20</td>
<td>29.92</td>
<td>18.33</td>
<td>11.44</td>
<td>8.90</td>
<td>7.00</td>
<td>5.93</td>
<td>3.96</td>
<td>3.40</td>
<td>1.78</td>
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<tr>
<td>1.67V/Cell</td>
<td>108.2</td>
<td>73.62</td>
<td>50.41</td>
<td>30.65</td>
<td>18.78</td>
<td>11.72</td>
<td>9.11</td>
<td>7.17</td>
<td>6.08</td>
<td>4.06</td>
<td>3.45</td>
<td>1.81</td>
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<tr>
<td>1.60V/Cell</td>
<td>113.0</td>
<td>76.89</td>
<td>52.65</td>
<td>32.02</td>
<td>19.62</td>
<td>12.24</td>
<td>9.52</td>
<td>7.49</td>
<td>6.35</td>
<td>4.24</td>
<td>3.50</td>
<td>1.83</td>
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</table>

### Constant Power Discharge (CP, Unit: W) at 25°C (77°F)

<table>
<thead>
<tr>
<th>F.V./Time</th>
<th>5Min</th>
<th>10Min</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>10Hr</th>
<th>20Hr</th>
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<tbody>
<tr>
<td>1.80V/Cell</td>
<td>181.2</td>
<td>123.2</td>
<td>84.38</td>
<td>51.32</td>
<td>31.44</td>
<td>19.62</td>
<td>15.26</td>
<td>12.00</td>
<td>10.17</td>
<td>6.80</td>
<td>5.85</td>
<td>3.06</td>
</tr>
<tr>
<td>1.75V/Cell</td>
<td>182.7</td>
<td>124.3</td>
<td>85.10</td>
<td>51.75</td>
<td>31.71</td>
<td>19.79</td>
<td>15.39</td>
<td>12.10</td>
<td>10.26</td>
<td>6.85</td>
<td>5.94</td>
<td>3.11</td>
</tr>
<tr>
<td>1.70V/Cell</td>
<td>187.3</td>
<td>127.4</td>
<td>87.23</td>
<td>53.05</td>
<td>32.50</td>
<td>20.28</td>
<td>15.77</td>
<td>12.40</td>
<td>10.51</td>
<td>7.02</td>
<td>6.03</td>
<td>3.15</td>
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<tr>
<td>1.67V/Cell</td>
<td>191.8</td>
<td>130.5</td>
<td>89.35</td>
<td>54.34</td>
<td>33.29</td>
<td>20.78</td>
<td>16.15</td>
<td>12.71</td>
<td>10.77</td>
<td>7.20</td>
<td>6.11</td>
<td>3.20</td>
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<tr>
<td>1.60V/Cell</td>
<td>200.4</td>
<td>136.3</td>
<td>93.33</td>
<td>56.76</td>
<td>34.78</td>
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<td>13.27</td>
<td>11.25</td>
<td>7.52</td>
<td>6.20</td>
<td>3.25</td>
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