



The **WISE** Choice



**SEALED MAINTENANCE FREE
VALVE REGULATED LEAD ACID BATTERY
EM55VB - 12V55Ah**

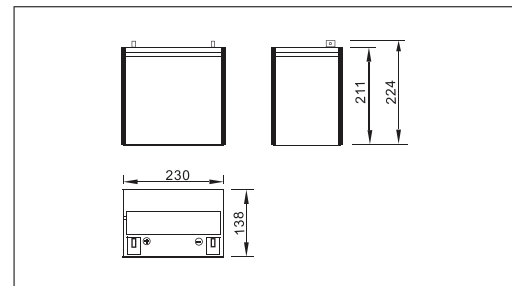
● **Characteristics**

| | | |
|---|-------------|--|
| Capacity (25°C) | 10HR(10.8V) | 55Ah |
| | 3HR(10.8V) | 41.1Ah |
| | 1HR(10.5V) | 30.5Ah |
| Terminal type | | T14 |
| Internal resistance (Fully charged, 25°C) | | Approx. 6.5m Ω |
| Capacity affected by temperature (10HR) | 40°C | 102% |
| | 25°C | 100% |
| | 0°C | 85% |
| | -15°C | 65% |
| Self-discharge (25°C) | 3month | Remaining Capacity:91% |
| | 6month | Remaining Capacity:82% |
| | 12month | Remaining Capacity:65% |
| Nominal operating temperature | | 25°C ± 3°C(77°F ± 5°F) |
| Operating temperature range | Discharge | -15°C~50°C(5°F~122°F) |
| | Charge | -10°C~50°C(14°F~122°F) |
| | Storage | -20°C~50°C(-4°F~122°F) |
| Float charging voltage(25°C) | | 13.50 to 13.80V Temperature compensation: -18mV/°C |
| Cyclic charging voltage(25°C) | | 14.50 to 15.00V Temperature compensation: -30mV/°C |
| Maximum charging current | | 16.5A |
| Terminal material | | Copper |
| Maximum discharge current | | 550A(5 sec.) |
| Designed floating life(20°C) | | 10years |

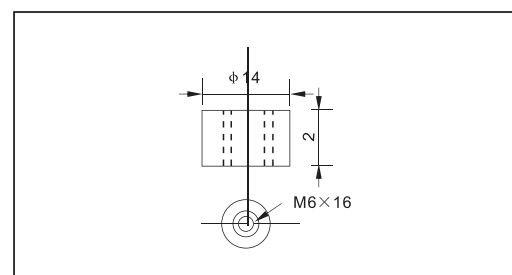
● **Specifications**

| | | |
|-------------------------------|--------------|--------------------|
| Nominal Voltage | | 12V |
| Rated capacity (10 hour rate) | | 55Ah |
| Dimensions | Length | 230±2mm(9.06inch) |
| | Width | 138±2mm(5.43inch) |
| | Height | 211±2mm(8.31inch) |
| | Total Height | 215±2mm(8.46inch) |
| Approx. Weight | | 17.3kg(38.1lbs)±3% |

● **Outer dimensions (mm)**



● **Terminal type (mm)**



EM55 VB - 12V55Ah

● Construction

| | | | | | | | | |
|--------------|----------------|----------------|-----------|-------|-----------|---------------|--------------|----------|
| Component | Positive plate | Negative plate | Container | Cover | Separator | Electrolyte | Safety valve | Terminal |
| Raw material | Lead dioxide | Lead | ABS | ABS | AGM | Sulfuric acid | Rubber | Copper |

● Constant Current Discharge Characteristics Unit: A(25°C,77°F)

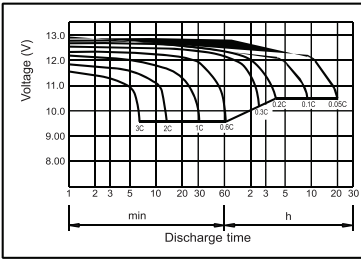
| F.V/Time | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 8h | @C10 | @C20 |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 9.60V | 120 | 92.4 | 55.3 | 34.0 | 20.1 | 14.5 | 11.6 | 9.87 | 6.79 | 5.60 | 2.97 |
| 9.90V | 116 | 90.2 | 54.2 | 33.5 | 20.0 | 14.4 | 11.5 | 9.82 | 6.75 | 5.59 | 2.96 |
| 10.2V | 112 | 86.9 | 52.5 | 32.6 | 19.8 | 14.3 | 11.4 | 9.75 | 6.70 | 5.57 | 2.95 |
| 10.5V | 107 | 83.9 | 51.2 | 31.6 | 19.5 | 14.2 | 11.3 | 9.68 | 6.66 | 5.54 | 2.94 |
| 10.8V | 101 | 79.5 | 49.4 | 30.6 | 19.0 | 13.8 | 11.0 | 9.39 | 6.46 | 5.50 | 2.92 |

● Constant Power Discharge Characteristics Unit: W(25°C,77°F)

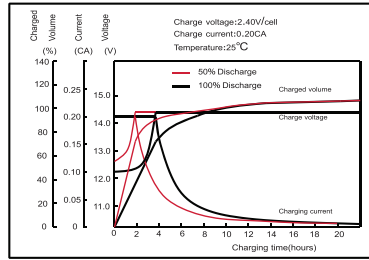
| F.V/Time | 10min | 15min | 30min | 60min | 2h | 3h | 4h | 5h | 8h | @C10 | @C20 |
|----------|-------|-------|-------|-------|-----|-----|-----|-----|------|------|------|
| 9.60V | 1295 | 1015 | 620 | 387 | 233 | 170 | 136 | 117 | 80.6 | 66.9 | 35.6 |
| 9.90V | 1256 | 990 | 608 | 382 | 231 | 169 | 135 | 116 | 80.2 | 66.7 | 35.5 |
| 10.2V | 1204 | 954 | 589 | 372 | 229 | 168 | 134 | 115 | 79.6 | 66.5 | 35.4 |
| 10.5V | 1152 | 921 | 575 | 360 | 226 | 167 | 133 | 114 | 79.1 | 66.1 | 35.2 |
| 10.8V | 1088 | 873 | 554 | 349 | 220 | 162 | 129 | 111 | 76.7 | 65.7 | 35.0 |

Note: The above characteristics data can be obtained within three charge or discharge cycles.

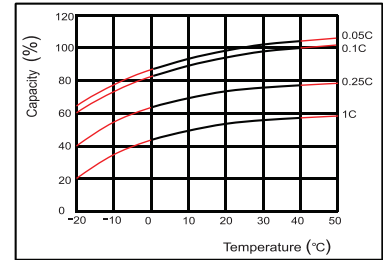
● Discharge characteristics (25°C)



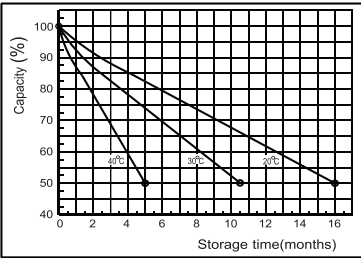
● Charging characteristics (25°C)



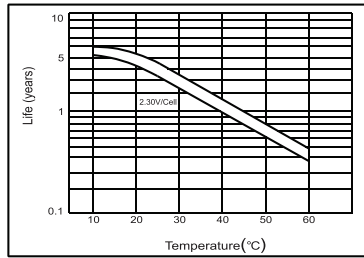
● Temperature effects on capacity



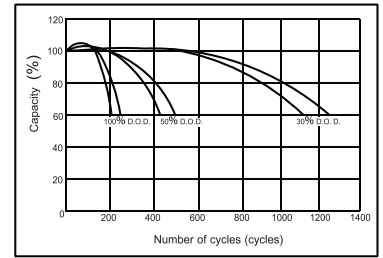
● Self-discharge characteristics



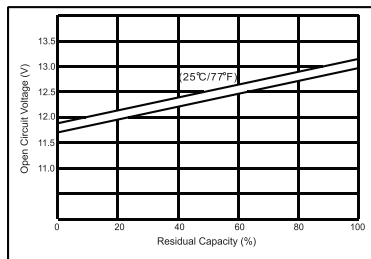
● Floating life on temperature



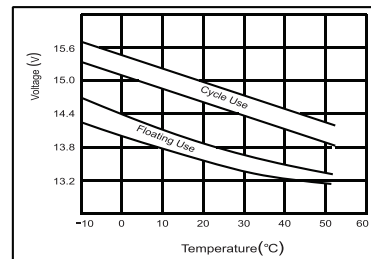
● Cycle life on D.O.D (25°C)



● Relationship for OCV and capacity (25°C)



● Relationship for charging voltage and temperature



Certification IEC CQC TLC ISO 9001 ISO 14001 ISO 18001

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