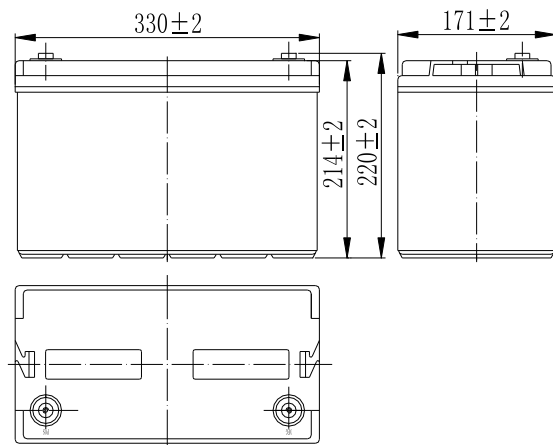


## BW EV 30-120 (12V 120AH)

### SPECIFICATIONS

|   |              |   |
|---|--------------|---|
| Nominal Voltage                           |              | 12 V  |
| Capacity (25°C)                           | 10HR         | 110 AH  |
|   | 5HR          | 97 AH   |
|   | 1HR          | 68 AH   |
| Dimension                                 | Length       | 330 ± 2mm (12.99inch)                                 |
|   | Width        | 171 ± 2mm (6.73inch)                                  |
|   | Height       | 214 ± 2mm (8.43inch)                                  |
|   | Total Height | 220 ± 2mm (8.66inch)                                  |
| Approx. Weight                            |              | 33.7kg(74.2lbs) ± 4%                                  |
| Terminal type                             |              | M8 IT   |
| Internal resistance (Fully charged, 25°C) |              | Approx. 4m Ω  |
| Capacity affected by temperature (10HR)   | 40°C         | 102%  |
|   | 25°C         | 100%  |
|   | 0°C          | 85%   |
|   | -15°C        | 65%   |
| Self-discharge (25°C)                     | 3 month      | Remaining Capacity: 91%                               |
|   | 6 month      | Remaining Capacity: 82%                               |
|   | 12 month     | 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<br>Temperature compensation: -18mV/°C |
| Cyclic charging voltage(25°C)             |              | 14.50 to 15.00V<br>Temperature compensation: -30mV/°C |
| Maximum charging current                  |              | 33A   |
| Maximum discharge current                 |              | 800A(5 sec.)  |
| Designed floating life(20°C)              |              | 10 years  |

### DIMENSIONS



### TERMINAL

### 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 (A, 25°C)

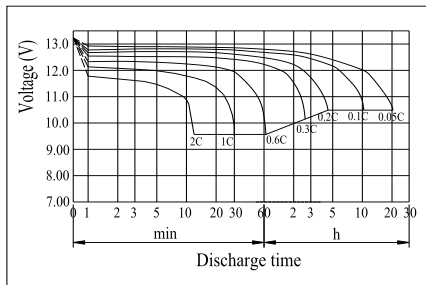
| F.V/TIME | 10min | 15min | 30min | 60min | 2h   | 3h   | 4h   | 5h   | 8h   | 10h  | 20h  |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 9.60V    | 240   | 185   | 111   | 68.0  | 40.2 | 28.6 | 23.1 | 19.7 | 13.6 | 11.2 | 5.93 |
| 9.90V    | 233   | 180   | 108   | 67.0  | 40.0 | 28.4 | 23.0 | 19.6 | 13.5 | 11.2 | 5.92 |
| 10.2V    | 223   | 174   | 105   | 65.3  | 39.6 | 28.2 | 22.8 | 19.5 | 13.4 | 11.1 | 5.91 |
| 10.5V    | 213   | 168   | 102   | 63.9  | 39.0 | 28.1 | 22.7 | 19.4 | 13.3 | 11.1 | 5.87 |
| 10.8V    | 201   | 159   | 99    | 61.9  | 38.0 | 27.2 | 22.0 | 18.8 | 12.9 | 11.0 | 5.83 |

CONSTANT POWER DISCHARGE CHARACTERISTICS (WATT, 25°C)

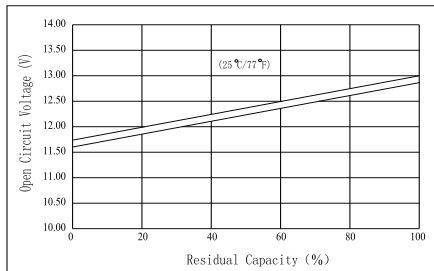
| F.V/TIME | 10min | 15min | 30min | 60min | 2h  | 3h  | 4h  | 5h  | 8h  | 10h | 20h  |
|----------|-------|-------|-------|-------|-----|-----|-----|-----|-----|-----|------|
| 9.60V    | 2590  | 2029  | 1240  | 775   | 465 | 336 | 272 | 233 | 161 | 134 | 71.2 |
| 9.90V    | 2512  | 1980  | 1216  | 763   | 463 | 334 | 270 | 232 | 160 | 133 | 71.1 |
| 10.2V    | 2409  | 1907  | 1178  | 744   | 459 | 332 | 268 | 230 | 159 | 133 | 70.9 |
| 10.5V    | 2305  | 1842  | 1150  | 728   | 452 | 330 | 266 | 229 | 158 | 132 | 70.4 |
| 10.8V    | 2175  | 1745  | 1108  | 706   | 440 | 320 | 258 | 222 | 153 | 131 | 70.0 |

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

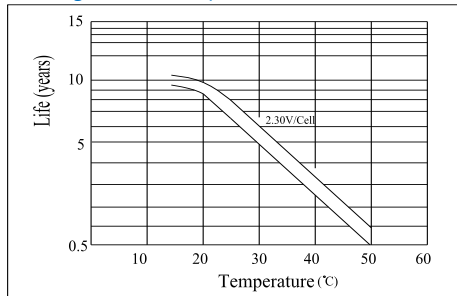
Discharge Characteristics (25°C)



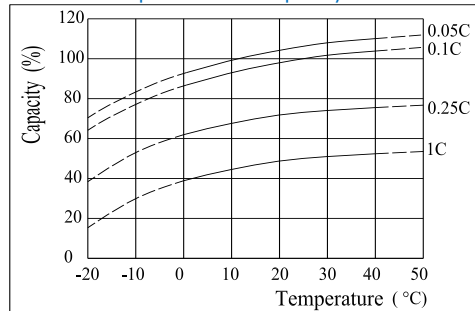
The Relationship for Open Circuit Voltage and Residual Capacity (25°C)



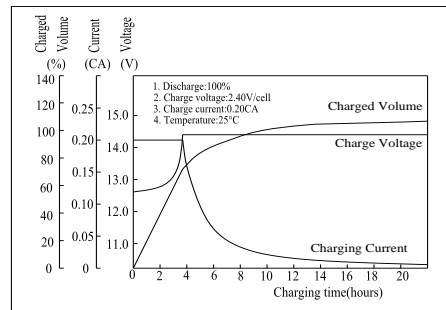
Floating Life on Temperature



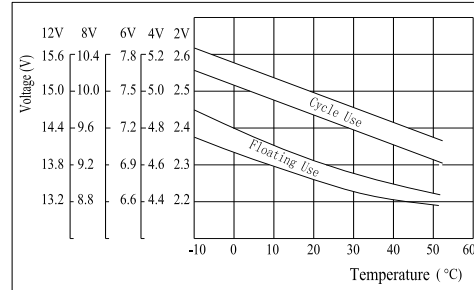
Effect of Temperature on Capacity



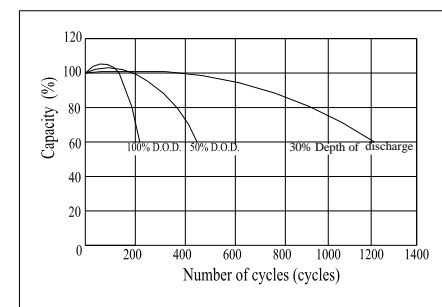
Charging Characteristics (25°C)



The Relationship for Charging Voltage and Temperature



Cycle Life on D.O.D (25°C)



Self-discharge Characteristic

