

### FEATURES

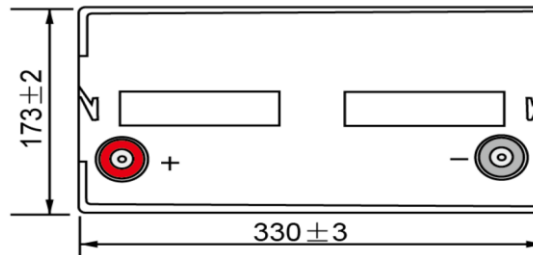
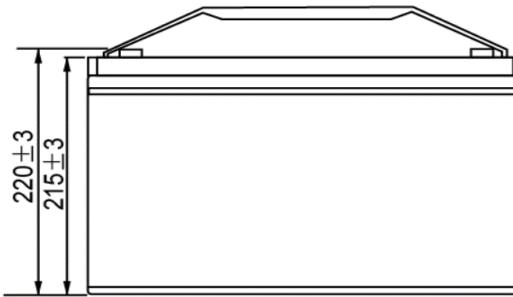
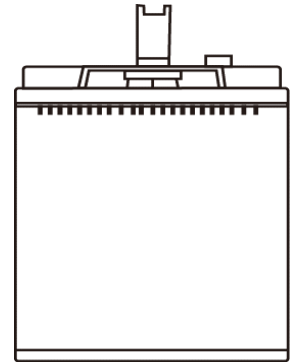
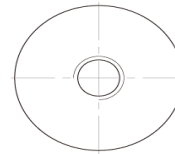
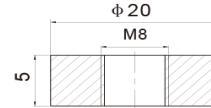
GEL series is specially designed for efficient discharges in cyclical applications under extreme environments. By using strong grids, high purity lead, premium AGM separators and Gel electrolyte. GEL series offers excellent recovery after deep discharge under frequent cyclic discharge use. Cycle life more than 600 times with 60% DOD, suitable for solar, CATV, marine, and deep discharge UPS.

### SPECIFICATION

|                                   |  |                            |                             |
|-----------------------------------|--|----------------------------|-----------------------------|
| <b>Cell per unit</b>              | 6  | <b>Ambient temperature</b> |                             |
| <b>Nominal Voltage (V)</b>        | 12   | Charge                     | 0°C(32°F) to 40°C (104°F)   |
| <b>Nominal Capacity (Ah)</b>      | 100Ah @ 10hour rate F.V(1,8/Cell)                | Discharge                  | -20°C(-4°F) to 55°C (131°F) |
| <b>Weight</b>                     | 31,5 kg  | Storage                    | -15°C(5°F) to 40°C (104°F)  |
| <b>Internal Resistance (1KHz)</b> | 4mΩ  |                            |                             |
| <b>Max Discharge Current (5s)</b> | 1000A (5s)                                       |                            |                             |
| <b>Design Life 25°C</b>           | 12 years (standby)                               |                            |                             |
| <b>Terminal Type</b>              | IT(F8)/NB(F16)                                   |                            |                             |
| <b>Container Material</b>         | ABS(Option : 94-HB & 94V-0 flame retardant case) |                            |                             |



| DIMENSIONS | Length     | Width     | Height    | Total Height |
|------------|------------|-----------|-----------|--------------|
| Unit: mm   | 330±3      | 173±2     | 215±3     | 220±3        |
| Unit: inch | 12.99±0.12 | 6.81±0.08 | 8.54±0.12 | 8.74±0.12    |



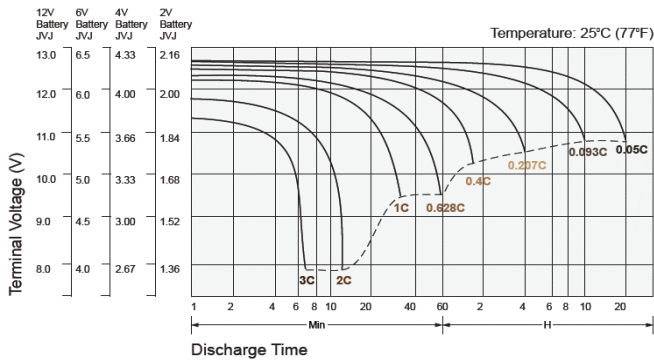
Constant current discharge characteristics Unit:A(25°C77°F)

| F.V/Time | 5MIN  | 15MIN | 30MIN | 60MIN | 2HR  | 3HR  | 5HR  | 8HR  | 10HR | 20HR |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|
| 9,6V     | 375,0 | 198,0 | 115,8 | 64,9  | 38,5 | 27,2 | 18,1 | 12,7 | 10,5 | 5,45 |
| 10,02V   | 346,0 | 185,6 | 103,0 | 61,5  | 36,4 | 26,1 | 17,8 | 12,6 | 10,3 | 5,40 |
| 10,2V    | 336,0 | 174,4 | 101,0 | 60,6  | 35,6 | 25,7 | 17,6 | 12,4 | 10,2 | 5,34 |
| 10,5V    | 305,0 | 162,0 | 92,1  | 56,5  | 32,5 | 24,8 | 17,4 | 12,2 | 10,1 | 5,29 |
| 10,,8V   | 267,0 | 150,0 | 83,7  | 50,8  | 29,3 | 23,7 | 16,7 | 12,0 | 10,0 | 5,20 |

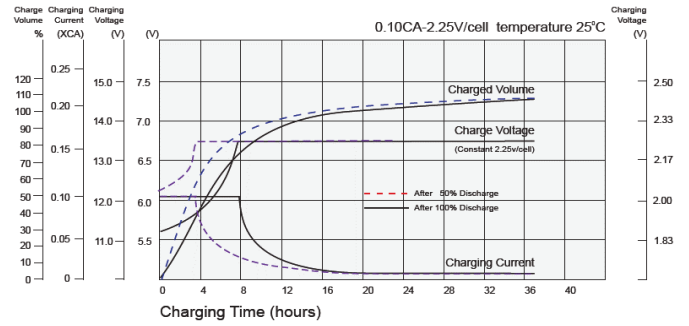
Constant power discharge characteristics Unit:W(25°C77°F)

| F.V/Time | 5MIN   | 15MIN  | 30MIN  | 60MIN | 2HR   | 3HR   | 5HR   | 8HR   | 10HR  | 20HR |
|----------|--------|--------|--------|-------|-------|-------|-------|-------|-------|------|
| 9,6V     | 3894,0 | 2170,0 | 1236,0 | 758,0 | 463,0 | 331,0 | 215,4 | 148,8 | 131,0 | 69,1 |
| 10,02V   | 3503,0 | 2075,0 | 1167,0 | 738,0 | 447,0 | 318,0 | 211,8 | 147,6 | 127,0 | 67,7 |
| 10,2V    | 3284,4 | 2027,0 | 1161,6 | 731,0 | 441,0 | 313,0 | 208,8 | 145,8 | 125,0 | 66,0 |
| 10,5V    | 3292,0 | 1919,0 | 1095,0 | 714,0 | 432,0 | 311,0 | 205,8 | 144,0 | 120,0 | 62,7 |
| 10,,8V   | 3071,0 | 1807,0 | 1041,0 | 696,0 | 417,0 | 298,0 | 201,6 | 142,2 | 113,5 | 64,3 |

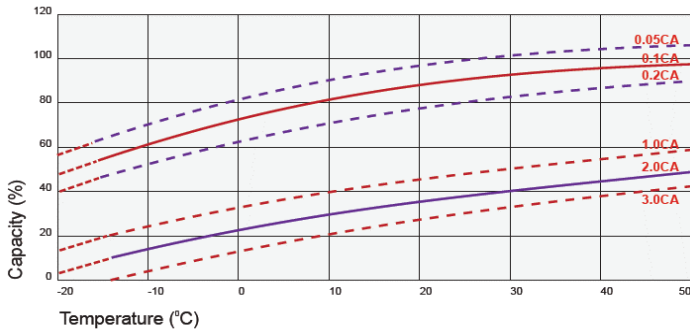
## Battery Discharge Characteristics (25°C/77°F)



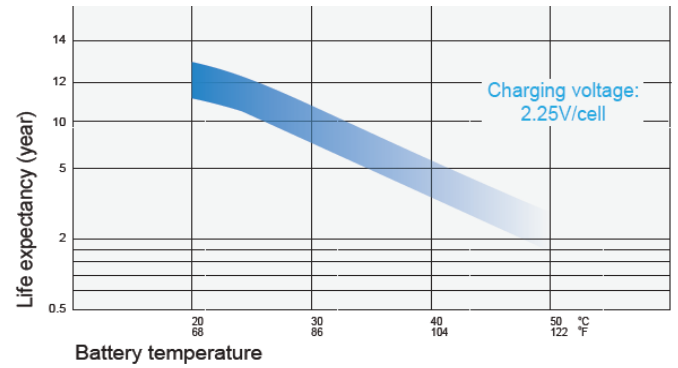
## Battery Charge Characteristic for standby use



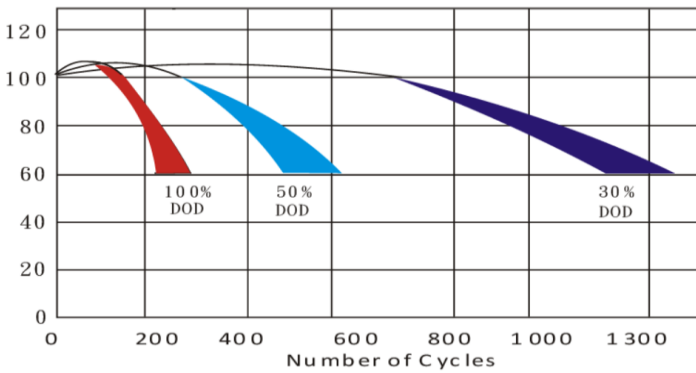
## Temperature Effects in Relation to Battery Capacity



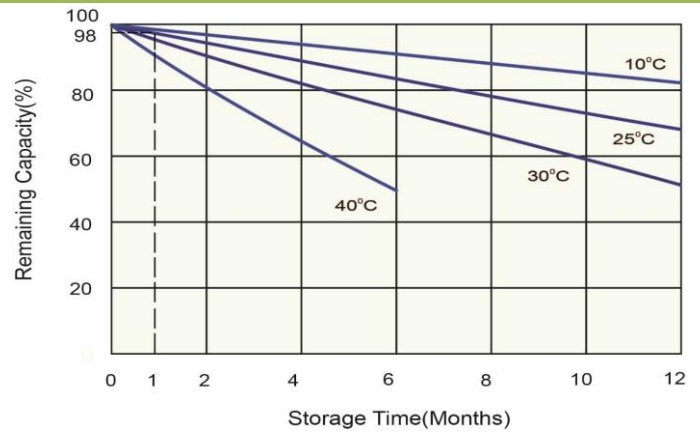
## Temperature Effects on Long Term Float Life



## Cycle Service Life



## Self Discharge Characteristics



## Charging Procedures

| Application | Charge Voltage (V/cell) |                             | Max. Charge Current (A) |
|-------------|-------------------------|-----------------------------|-------------------------|
|             | Temperature             | Set point / Allowable Range |                         |
| Cycle use   | 25 degC                 | 2,43 / 2,35 ~ 2,50          | 0,3 x C                 |
| Standby     |                         | 2,3 / 2,25 ~ 2,35           |                         |

## Discharge Current VS. Discharge Voltage

|                                |            |                   |                   |            |
|--------------------------------|------------|-------------------|-------------------|------------|
| Final Discharge Voltage V/cell | 1.75       | 1.70              | 1.65              | 1.60       |
| Discharge Current (A)          | 0.2C > (A) | 0.2C < (A) < 0.5C | 0.5C < (A) < 1.0C | (A) > 1.0C |

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