



# GY Series lead-acid battery GY6-EVF-90GP

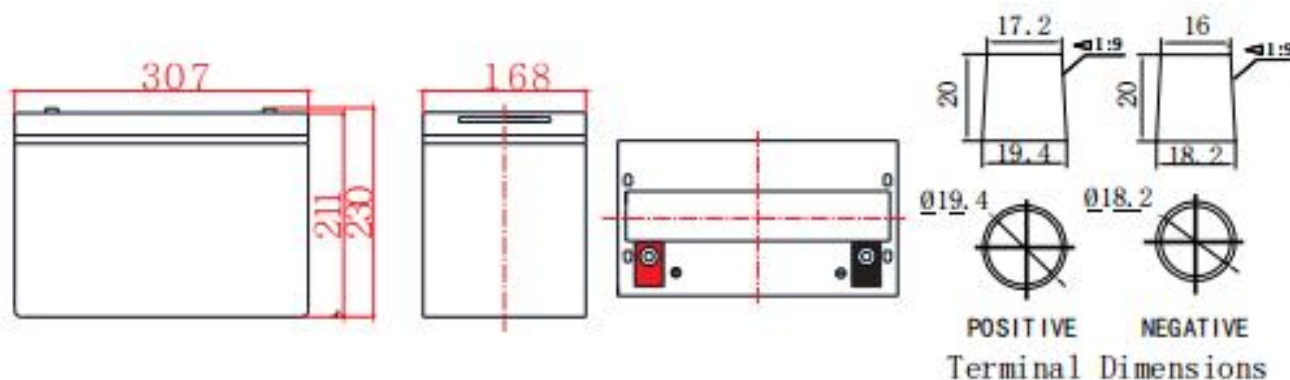


## General Features

- High corrosion resistant performance: Pb-Ca multi-alloy grid
- High energy density and power density
- Optimized capability of instant high-current discharging
- Excellent charge acceptance ability
- Excellent deep cycle discharge capability
- Strong high and low temperature performance
- Precision sealing technology
- Long life



Dimension:307(L)×168(W) ×211(H)×230(TH)/(±3) Unit: mm



| Specification                              |                                          |
|--------------------------------------------|------------------------------------------|
| Nominal Voltage                            | 12V                                      |
| Nominal Capacity                           | 90Ah@20Hour-rate to 1.75V per cell @25℃  |
| Design life                                | 10 years                                 |
| Terminal                                   | AP                                       |
| Approx. Weight                             | Approx. 30.2kg ± 3% (66.6lbs ± 3%)       |
| Container Material                         | ABS                                      |
| short-circuit current                      | 2666A                                    |
| Internal resistance(Full charged at 25℃: ) | 4.5 mΩ                                   |
| Self discharge                             | 3% of capacity declined per month at 25℃ |
| Operating Temperature                      |                                          |
| Discharge:                                 | -20 ~50℃(-4~ 122°F)                      |
| Charge :                                   | -20 ~50℃(-4~ 122°F)                      |
| Storage:                                   | -20 ~50℃(-4~ 122°F)                      |
| Charge Method(25 °C)                       |                                          |
| Charge current:                            | Max. 22.5A;Recom.9.0A                    |
| Float charge:13.5-13.8V                    | recom.13.8V(-18mV/ °C)                   |
| Equalize charge:13.8-14.1V                 | recom.14.1V(-24mV/ °C)                   |
| Cycle charge:14.4-15.0V                    | recom.14.7V(-30mV/ °C)                   |

## Standards

Executive standard GB/T 32620.1-2016

## Applications

- UPS/EPS
- Power systems
- Telecommunications system
- Emergency lighting, Auto control system
- Solar/wind generating storage cyclic
- Other general purpose

## Rated Capacity

|                              |        |
|------------------------------|--------|
| 20Hour Rate (4.50A to 10.5V) | 90.0Ah |
| 3Hour Rate (21.4A to 10.2V)  | 64.2Ah |
| 1Hour Rate (49.7A to 9.6V)   | 49.7Ah |

## Attain Certificate

|  |  |  |             |
|--|--|--|-------------|
|  |  |  | <b>RoHS</b> |
|  |  |  |             |

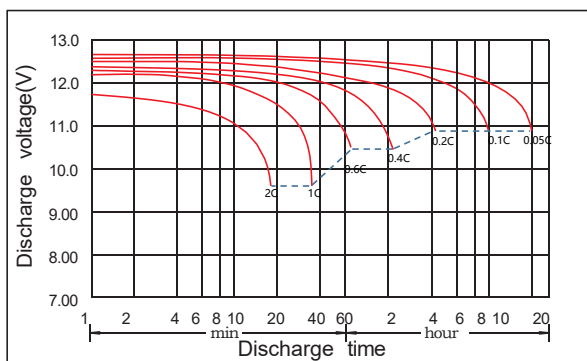
Disclaimer: Manufacturers have the right to self-modify the parameters of the product updates, please keep in touch with manufacturers to obtain the latest information.



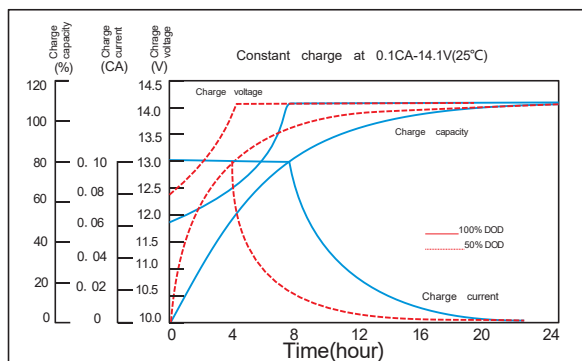
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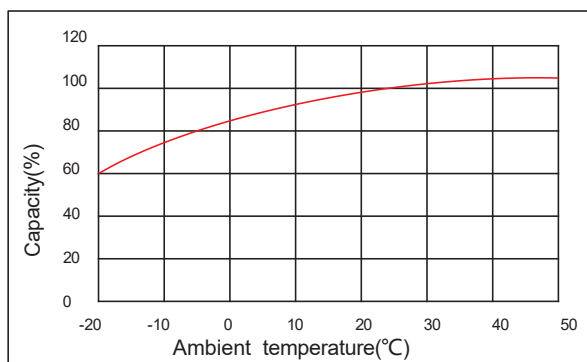
## Discharge characteristic



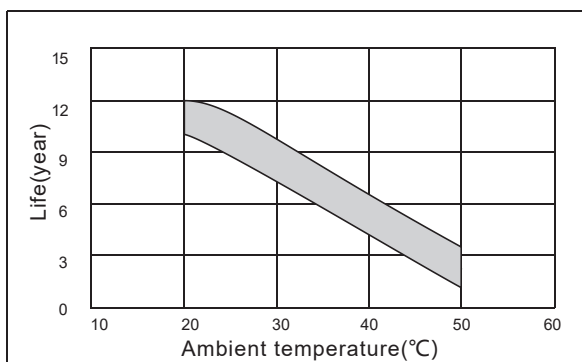
## Charging characteristic



## The effect of temperature on capacity



## The effect of temperature on float life



Constant Current Discharge Characteristics Unit:A (25,77)

| FV/Time | 15min | 30min | 45min | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 8h    | 10h  | 20h  |
|---------|-------|-------|-------|------|------|------|------|------|------|------|-------|------|------|
| 1.60V   | 116   | 73.9  | 61    | 49.7 | 36.3 | 31.7 | 22.3 | 17.4 | 15.1 | 12.9 | 10.00 | 8.91 | 4.86 |
| 1.65V   | 114   | 72.4  | 59.9  | 48.9 | 35.6 | 31.1 | 21.9 | 17.0 | 14.9 | 12.6 | 9.79  | 8.74 | 4.78 |
| 1.70V   | 111   | 71.1  | 58.9  | 48   | 34.9 | 30.6 | 21.4 | 16.8 | 14.6 | 12.4 | 9.62  | 8.59 | 4.67 |
| 1.75V   | 109   | 69.9  | 57.8  | 47.1 | 34.2 | 30.0 | 21.1 | 16.4 | 14.3 | 12.1 | 9.43  | 8.42 | 4.50 |
| 1.80V   | 105   | 67.1  | 55.5  | 45.2 | 32.9 | 28.9 | 20.2 | 15.8 | 13.8 | 11.7 | 9.06  | 8.10 | 4.29 |
| 1.85V   | 99.2  | 62.4  | 52    | 42.4 | 30.7 | 27.2 | 19.3 | 14.7 | 13.2 | 10.9 | 8.61  | 7.54 | 3.96 |

Constant Power Discharge Characteristics Unit: W/cell (25 ,77 )

| FV/Time | 15min | 30min | 45min | 1h   | 1.5h | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|---------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| 1.60V   | 223   | 142   | 115   | 96   | 72.3 | 61.1 | 42.9 | 34.3 | 29.1 | 25.1 | 19.2 | 17.1 | 9.54 |
| 1.65V   | 219   | 140   | 113   | 94.3 | 71.1 | 60   | 42.2 | 33.7 | 28.7 | 24.7 | 18.9 | 16.8 | 9.36 |
| 1.70V   | 215   | 137   | 111   | 92.4 | 69.7 | 58.9 | 41.4 | 33   | 28.1 | 24.2 | 18.5 | 16.5 | 9.17 |
| 1.75V   | 211   | 135   | 109   | 90.6 | 68.5 | 57.6 | 40.5 | 32.4 | 27.6 | 23.8 | 18.2 | 16.2 | 9.00 |
| 1.80V   | 202   | 129   | 105   | 87.2 | 65.8 | 55.5 | 39   | 31.2 | 26.6 | 22.9 | 17.5 | 15.6 | 8.66 |
| 1.85V   | 192   | 125   | 99    | 82.5 | 62.7 | 53.1 | 36.6 | 29.7 | 25.1 | 21.8 | 16.6 | 14.8 | 8.25 |