

### General Series battery

JYC General (GP) Series VRLA batteries are designed with AGM (Absorbent Glass Mat) technology, High performance plates and electrolyte to give extra power output for common power backup system. GP Series Batteries are the general purpose batteries with 5 years floating design life at 25°C, Meet with IEC,BS,JIS and Eurobat standard,UL(MH62092),CE approved.

### Application

- \* Emergency Power System
- \* Communication equipment
- \* Telecommunication systems
- \* Uninterruptible power supplies
- \* Electric toy car and wheelchairs, etc.
- \* Power tools
- \* Alarm system
- \* Marine equipment
- \* Medical equipment
- \* Fire and Security System



### General Features

- \* Heavy Duty Grid
- \* Mechanized assembly
- \* Non-spillable construction
- \* High Reliability and Stability
- \* Sealed and Maintenance-free
- \* Long Life and low self-discharge design

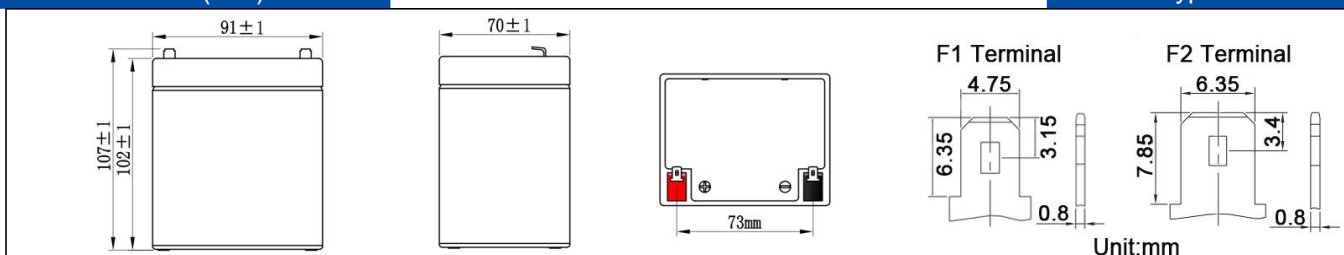
### Construction

- \* Positive . . . . . Lead dioxide
- \* Electrolyte . . . . Sulfuric acid
- \* Separator . . . . . Fiber glass
- \* Container . . . . . ABS(UL94-HB)/Flame Retardant ABS (UL94-V0)
- \* Negative . . . . . Lead
- \* Safety Valve . . . . EPDR
- \* Terminal . . . . . Copper

### Specification

| Battery Model                    | Nominal Voltage                         |                               | 12V (6 cells per unit)       |                         |
|----------------------------------|-----------------------------------------|-------------------------------|------------------------------|-------------------------|
|                                  | Rated capacity (20 Hour rate)           |                               | 4.5Ah                        |                         |
| Dimension                        | Length                                  | Width                         | Height                       | Total Height            |
|                                  | 91mm (3.58 inches)                      | 70mm (2.75 inches)            | 102mm (4.01 inches)          | 107mm (4.21 inches)     |
| Approx Weight                    | 1.33kg(2.93 lbs) ± 3%                   |                               |                              |                         |
| Internal Resistance              | Full charged at 25°C(77°F):Approx37.5mΩ |                               |                              |                         |
| Maximum Charge Current           | 1.35A                                   |                               |                              |                         |
| Max.discharge current            | 67.5A (5Sec.)                           |                               |                              |                         |
| Short-circuit current            | 300A                                    |                               |                              |                         |
| Operating Temperature Range      | Nominal Operating Temperature           | Discharge                     | Charge                       | Storage                 |
|                                  | 25°C(77°F)                              | -15°C~ 50°C(5°F~122°F)        | -15°C~ 40°C(5°F~104°F)       | -15°C~ 40°C(5°F~104°F)  |
| Capacity @ 25°C (77°F)           | 20 hour rate(0.23A,10.5V)               | 10 hour rate(0.426A,10.5V)    | 3 hour rate(1.157A,10.2V)    | 1 hour rate(2.75A,9.6V) |
|                                  | 4.60Ah                                  | 4.26Ah                        | 3.471Ah                      | 2.75Ah                  |
| Capacity affected by Temp.(20HR) | 40°C (104°F)                            | 25°C (77°F)                   | 0°C (32°F)                   | -15°C (5°F)             |
|                                  | 102%                                    | 100%                          | 85%                          | 65%                     |
| Charge method at 25°C(77°F)      | Float Charging Voltage                  | Equalization Charging Voltage | Cycle Use Voltage            |                         |
|                                  | 13.5~13.8 VDC (-3mV/cell/°C)            | 14.1~14.4 VDC (-4mV/cell/°C)  | 14.4~15.0 VDC (-5mV/cell/°C) |                         |

### Outer dimension (mm)

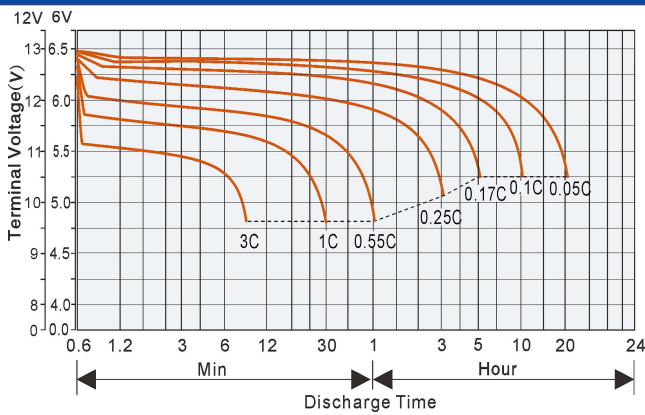


### Terminal Type

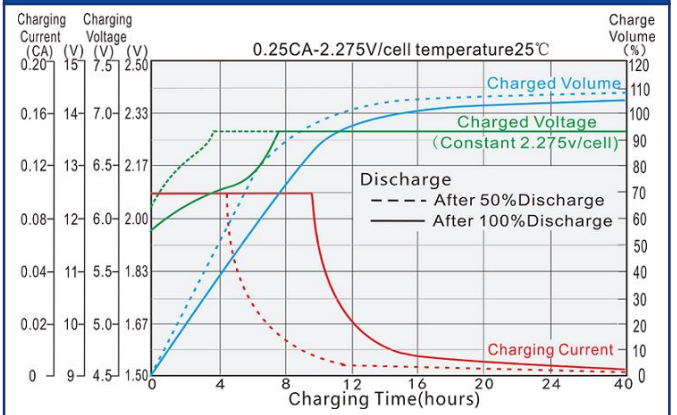
### Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)

| F.V/Time   |   | 5min  | 10min | 15min | 20min | 30min | 1h   | 2h    | 3h    | 5h    | 8h    | 10h   | 20h   |
|------------|---|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|
| 1.85V/cell | A | 14.80 | 9.62  | 7.62  | 6.32  | 4.35  | 2.48 | 1.520 | 1.088 | 0.724 | 0.508 | 0.410 | 0.219 |
|            | W | 28.05 | 18.44 | 14.82 | 12.34 | 8.56  | 4.92 | 3.021 | 2.165 | 1.445 | 1.016 | 0.824 | 0.442 |
| 1.80V/cell | A | 15.63 | 10.09 | 7.95  | 6.58  | 4.54  | 2.55 | 1.552 | 1.114 | 0.740 | 0.517 | 0.418 | 0.225 |
|            | W | 29.19 | 19.19 | 15.36 | 12.77 | 8.89  | 5.04 | 3.077 | 2.211 | 1.473 | 1.032 | 0.838 | 0.453 |
| 1.75V/cell | A | 16.38 | 10.53 | 8.27  | 6.82  | 4.71  | 2.62 | 1.581 | 1.137 | 0.755 | 0.526 | 0.426 | 0.230 |
|            | W | 30.17 | 19.89 | 15.87 | 13.17 | 9.18  | 5.17 | 3.127 | 2.251 | 1.500 | 1.048 | 0.853 | 0.462 |
| 1.70V/cell | A | 17.05 | 10.95 | 8.58  | 7.04  | 4.87  | 2.68 | 1.608 | 1.157 | 0.767 | 0.533 | 0.432 | 0.235 |
|            | W | 31.02 | 20.55 | 16.36 | 13.53 | 9.46  | 5.28 | 3.173 | 2.286 | 1.521 | 1.060 | 0.863 | 0.472 |
| 1.67V/cell | A | 17.39 | 11.15 | 8.73  | 7.15  | 4.95  | 2.71 | 1.621 | 1.167 | 0.773 | 0.536 | 0.435 | 0.237 |
|            | W | 31.46 | 20.86 | 16.59 | 13.71 | 9.59  | 5.33 | 3.195 | 2.303 | 1.532 | 1.065 | 0.869 | 0.476 |
| 1.60V/cell | A | 17.85 | 11.48 | 9.00  | 7.30  | 5.05  | 2.75 | 1.640 | 1.180 | 0.780 | 0.540 | 0.439 | 0.240 |
|            | W | 32.01 | 21.34 | 17.01 | 13.95 | 9.76  | 5.40 | 3.228 | 2.326 | 1.544 | 1.072 | 0.876 | 0.481 |

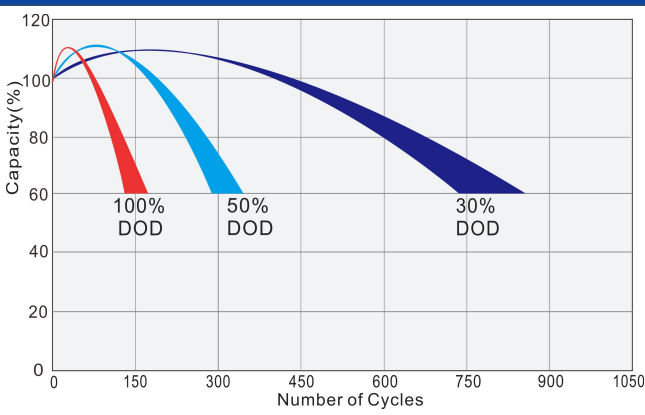
### Discharge characteristic curve (25°C/77°F)



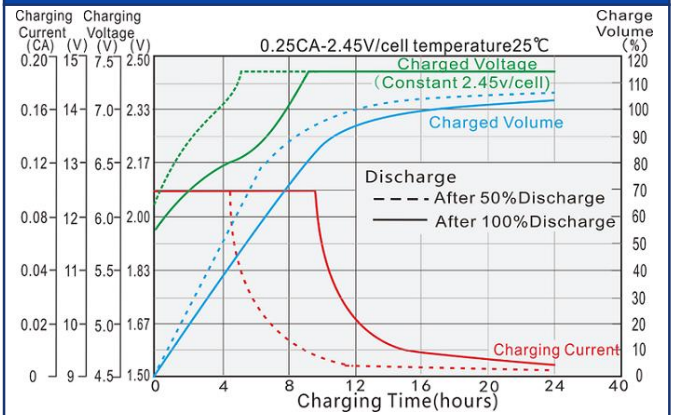
### Charging characteristic curve of floating charge (25°C/77°F)



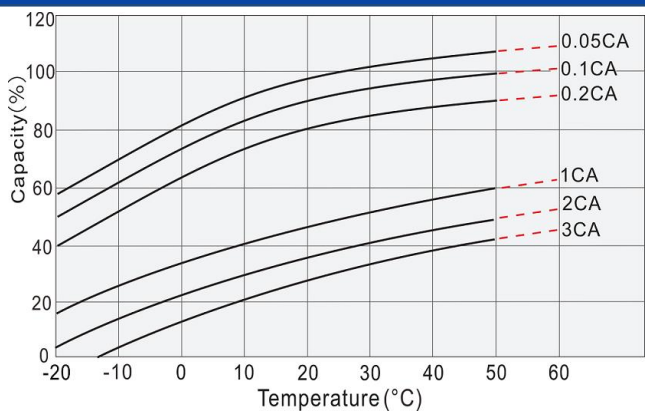
### Cycle service life in relation to depth of discharge



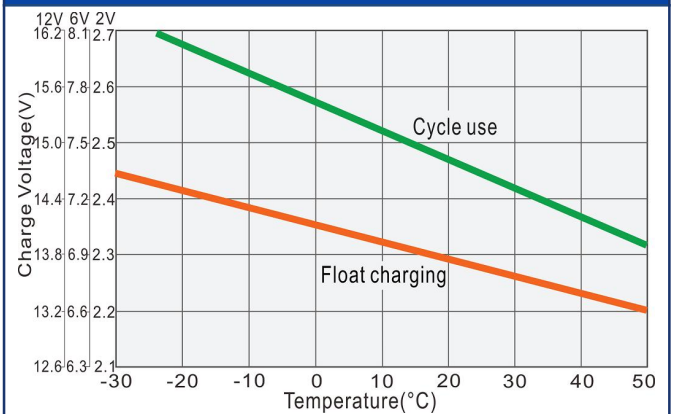
### Cyclic charging characteristic curve (25°C/77°F)



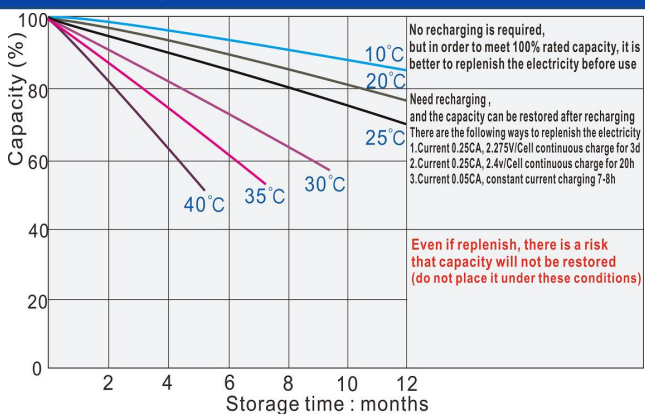
### Relationship between temperature and capacity



### Relationship between charging voltage and temperature



### Self discharge characteristics



### Temperature vs Float Life

