

# BATTERY Samson VEV12-22

## Electric vehicle battery expert

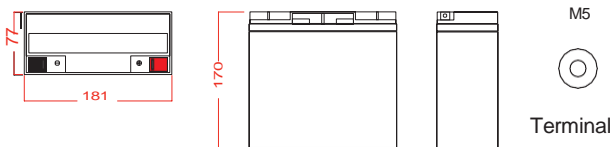


### General Features

- High Corrosion Resistant Performance: Pb-Ca multi-alloy grid
- High Energy Density and Power Density
- Excellent Charge Acceptance Ability
- Strong High and Low Temperature Performance
- Optimized Capability of instant High-current Discharging
- Low self-discharge rate



Dimension: 181(L)×77(W)×170(H)×170(TH) Unit: mm



### Applications

- Electric vehicle
- Electric wheelchair
- Electric scooter
- Electric play car for children
- Garbage truck
- Patrol car

### Specification

|                       |  |
|-----------------------|--|
| Nominal Voltage       | 12V  |
| Nominal Capacity      | 22.3Ah                                     |
| Design life           | 10 years                                   |
| Terminal              | M5   |
| Approx. Weight        | Approx6.85KG                               |
| Container Material    | ABS  |
|                       | <b>28.5Ah</b> 10Hour Rate (2.85A to 10.5V) |
|                       | <b>22.3Ah</b> 2Hour Rate (11.15A to 10.5V) |
|                       | <b>15.7Ah</b> 1Hour Rate (15.7A to 10.5V)  |
| Operating Temperature | Discharge: -20 ~50°C(-4~ 122°F)            |
|                       | Charge : -20 ~50°C(-4~ 122°F)              |
|                       | Storage: -20 ~50°C(-4~ 122°F)              |
|                       | Float Use:13.7-13.9V@25°C                  |
| Charge Method (25 °C) | Cycle Use :14.7-14.9V, @25°C               |
|                       | Max charge current 3.35 A                  |
| Self discharge        | 3% of capacity declined per month at 25°C  |

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

| F.V/Time | 5M   | 15M  | 30M  | 1h   | 2h   | 3h   | 5h   | 8h   | 10h  | 20h  |
|----------|------|------|------|------|------|------|------|------|------|------|
| 1.60V    | 105  | 56.7 | 34.5 | 20.1 | 11.6 | 8.56 | 5.63 | 3.61 | 2.96 | 1.56 |
| 1.65V    | 102  | 54.9 | 33.9 | 20.0 | 11.5 | 8.47 | 5.57 | 3.58 | 2.94 | 1.55 |
| 1.70V    | 98.2 | 53.8 | 33.3 | 19.9 | 11.4 | 8.35 | 5.51 | 3.55 | 2.91 | 1.54 |
| 1.75V    | 90.3 | 52.0 | 33.0 | 19.6 | 11.2 | 8.26 | 5.45 | 3.52 | 2.88 | 1.53 |
| 1.80V    | 80.9 | 48.5 | 31.6 | 19.1 | 11.0 | 8.20 | 5.31 | 3.49 | 2.85 | 1.52 |
| 1.85V    | 72.1 | 43.2 | 28.8 | 17.7 | 10.5 | 7.72 | 5.04 | 3.35 | 2.76 | 1.50 |

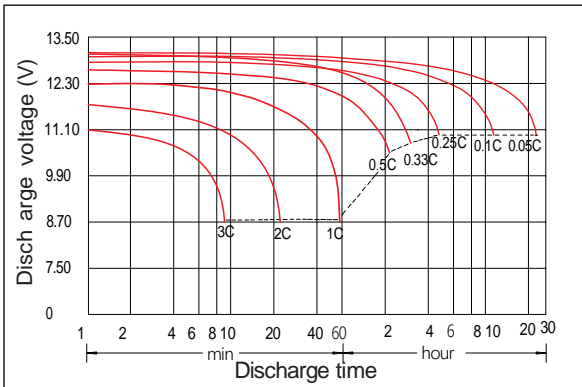
### Constant Power Discharge Characteristics Unit: W/cell(25°C,77°F)

| F.V/Time | 5M  | 15M  | 30M  | 1h   | 2h   | 3h   | 5h   | 8h   | 10h  | 20h  |
|----------|-----|------|------|------|------|------|------|------|------|------|
| 1.60V    | 177 | 99.8 | 62.3 | 38.1 | 21.8 | 16.3 | 10.7 | 7.01 | 5.70 | 3.08 |
| 1.65V    | 170 | 98.0 | 61.8 | 37.8 | 21.8 | 16.1 | 10.6 | 6.96 | 5.64 | 3.06 |
| 1.70V    | 169 | 96.9 | 61.8 | 37.5 | 21.7 | 16.0 | 10.5 | 6.93 | 5.59 | 3.05 |
| 1.75V    | 158 | 96.3 | 61.5 | 37.2 | 21.6 | 15.9 | 10.5 | 6.87 | 5.53 | 3.04 |
| 1.80V    | 145 | 91.0 | 60.0 | 36.9 | 21.5 | 15.8 | 10.4 | 6.81 | 5.47 | 3.02 |
| 1.85V    | 129 | 81.4 | 55.0 | 34.3 | 20.6 | 15.1 | 9.88 | 6.58 | 5.39 | 2.99 |

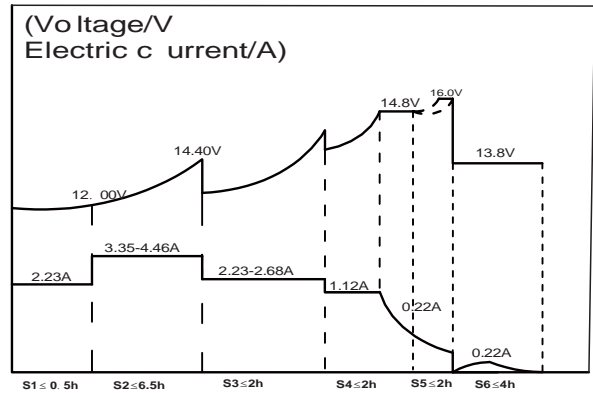
Disclaimer: Manufacturers have the right to self-modify the parameters of the product updates, please keep in touch with manufacturers to obtain the latest information.

**VEV12-22**

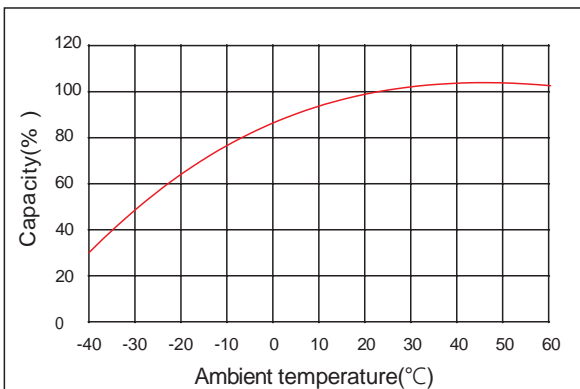
Discharge characteristic



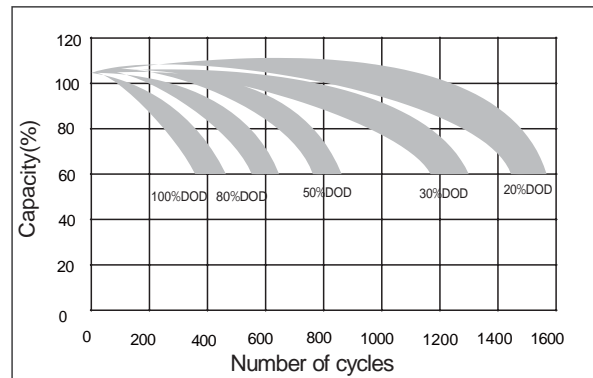
Charging characteristic



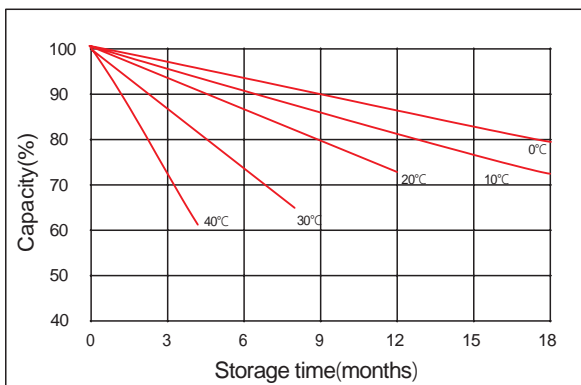
The effect of temperature on capacity



The effect of discharge depth on cycle life



Curves of self-discharge



Curves of open circuit voltage vs. capacity

