

## HR12430W

## High Rate Series Battery

## General Features



HR 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. High rate series Batteries are the special design batteries with 10 years floating design life at 25°C.

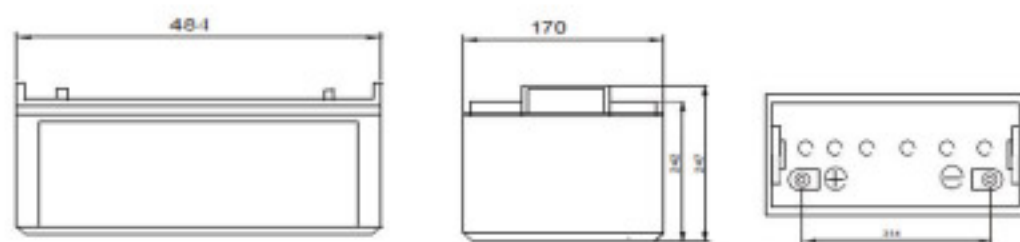
- Safety Sealing
- Non-spillable construction
- High Reliability and Stability
- Sealed and Maintenance-free
- Safety and Quality certification
- Long Life and low self-discharge design

Container: ABS(UL94-HB) & Flame Retardant of UL94-V0 can be available upon request

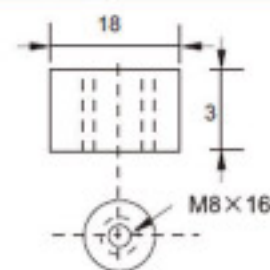
## Specification

|                                   |                                                     |                    |                       |                        |
|-----------------------------------|-----------------------------------------------------|--------------------|-----------------------|------------------------|
| Battery Model                     | Nominal Voltage                                     |                    | 12V                   |                        |
|                                   | Rated capacity (10 Hour rate)                       |                    | 135h                  |                        |
|                                   | Capacity(15 minutes rate to 1.67V/Cell)             |                    | 430w                  |                        |
| Dimensions                        | Lenght                                              | With               | Height                | Total Height           |
|                                   | 484mm (19.05inches)                                 | 170mm (6.69inches) | 242mm (9.53inches)    | 247mm (9.72inches)     |
| Aprox Weight                      | 36.5kg (80.3lbs) ± 3%                               |                    |                       |                        |
| Max. discharge current            | 1200A (5Sec.)                                       |                    |                       |                        |
| Internal Resistance               | Full charged at 25°C: Approx 3.6mΩ                  |                    |                       |                        |
| Capacity affected by Temp. (10HR) | 40°C (104°F)                                        | 25°C (77°F)        | 0°C (32°F)            | -15°C (5°F)            |
|                                   | 102%                                                | 100%               | 85%                   | 65%                    |
| Self Discharge at 25°C (77°F)     | After 3 month storage                               |                    | After 6 month storage | After 12 month storage |
|                                   | 91%                                                 |                    | 82%                   | 64%                    |
| Charge method 25°C (77°F)         | Cycle Use                                           |                    | Float Use             |                        |
|                                   | 14.6-14.8V (Initial charging current less than 36A) |                    | 13.70-13.90V          |                        |

## Outer Dimensions (mm)



## Terminal Type (mm)



T5

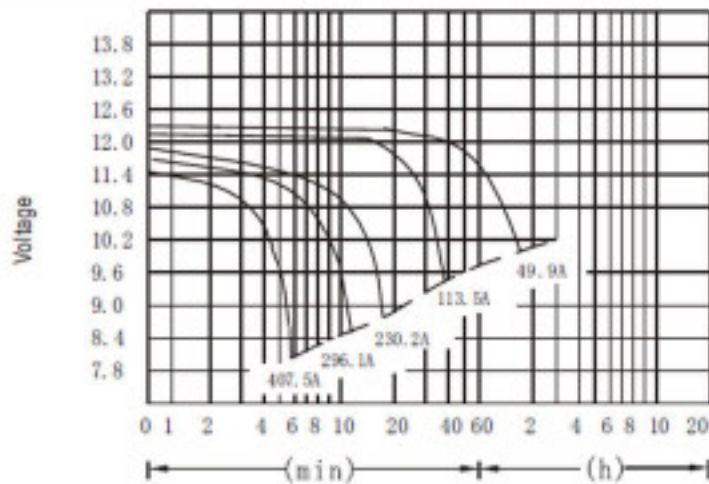
## Constant Power(Watt/Cell) Discharge at 25°C (77°F)

| F.V/Time | 5min  | 10min | 15min | 20min | 30min | 45min | 60min | 90min  |
|----------|-------|-------|-------|-------|-------|-------|-------|--------|
| 1.60V    | 808.8 | 573.6 | 449.7 | 363.3 | 292.1 | 193.7 | 161.7 | 118.80 |
| 1.67V    | 747.3 | 540.1 | 430.0 | 348.6 | 286.9 | 188.5 | 160.2 | 117.20 |
| 1.70V    | 722.1 | 526.3 | 419.8 | 340.1 | 284.1 | 183.4 | 159.7 | 117.85 |
| 1.75V    | 687.6 | 504.8 | 402.5 | 328.4 | 279.8 | 177.7 | 157.8 | 115.68 |
| 1.80V    | 651.4 | 476.5 | 387.6 | 314.2 | 273.4 | 173.9 | 156.5 | 115.37 |
| 1.85V    | 589.7 | 410.9 | 363.6 | 280.1 | 265.2 | 169.7 | 154.4 | 114.89 |

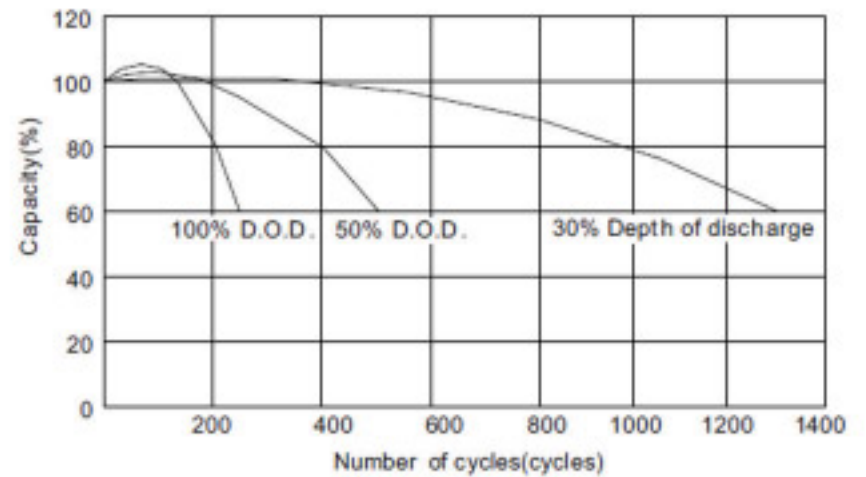
## Constant Current(Amp) Discharge at 25°C (77°F)

| F.V/Time | 5min   | 10min  | 15min  | 20min  | 30min  | 45min | 60min | 90min |
|----------|--------|--------|--------|--------|--------|-------|-------|-------|
| 1.60V    | 389.10 | 304.30 | 237.90 | 192.25 | 147.65 | 96.12 | 81.32 | 59.64 |
| 1.67V    | 354.60 | 283.70 | 222.70 | 180.50 | 143.21 | 94.23 | 80.55 | 58.47 |
| 1.70V    | 339.40 | 271.60 | 214.20 | 175.60 | 142.54 | 92.35 | 79.58 | 58.31 |
| 1.75V    | 315.30 | 255.40 | 201.70 | 166.70 | 140.64 | 89.64 | 78.86 | 57.89 |
| 1.80V    | 285.70 | 238.20 | 197.40 | 157.30 | 136.49 | 86.13 | 78.67 | 57.97 |
| 1.85V    | 249.80 | 203.90 | 187.80 | 145.80 | 133.72 | 80.47 | 76.84 | 56.52 |

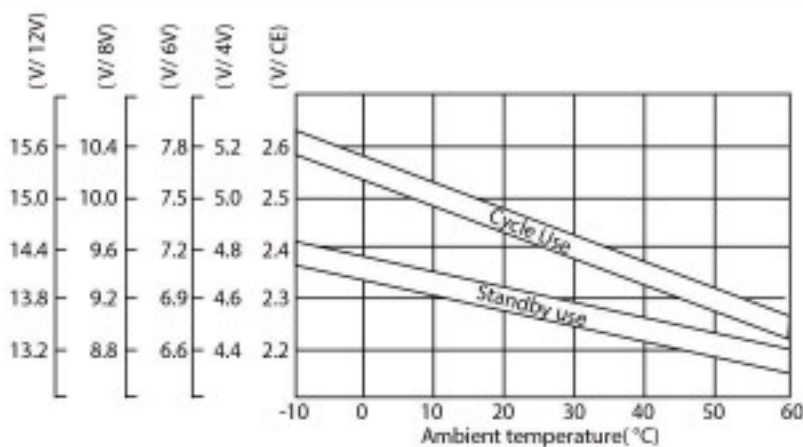
### Discharge characteristic Curve



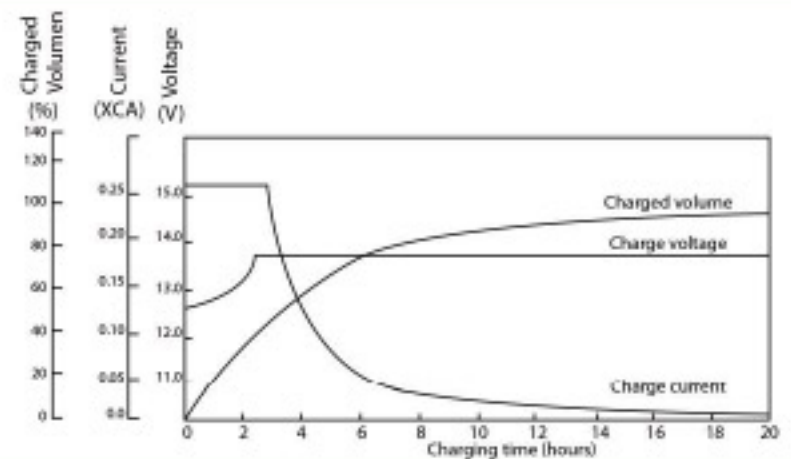
### Cycle service life in relation to depth of discharge



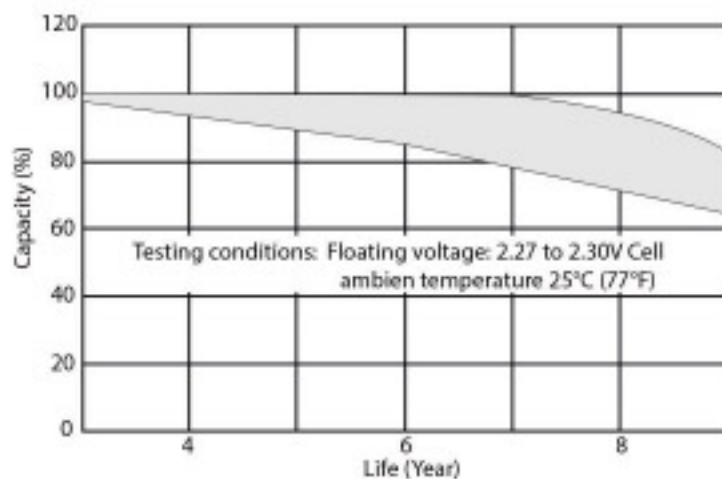
### Relationship between charging voltage and temperature



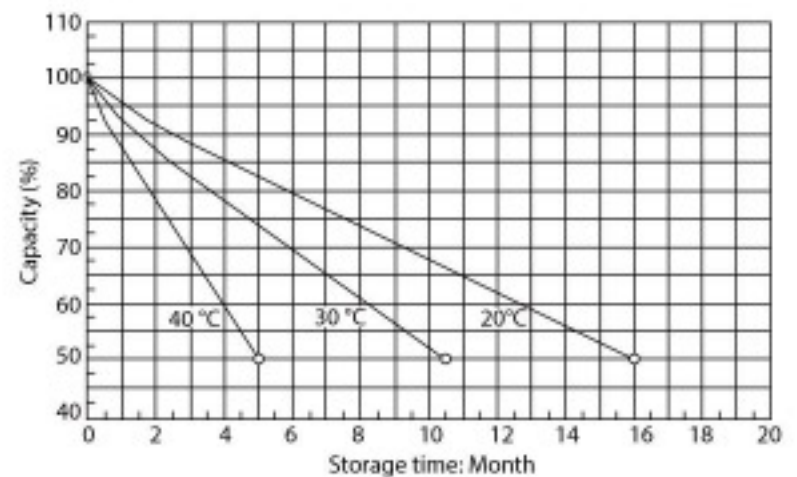
### Constant voltage charging characteristic (0.25CA, at 25°C)



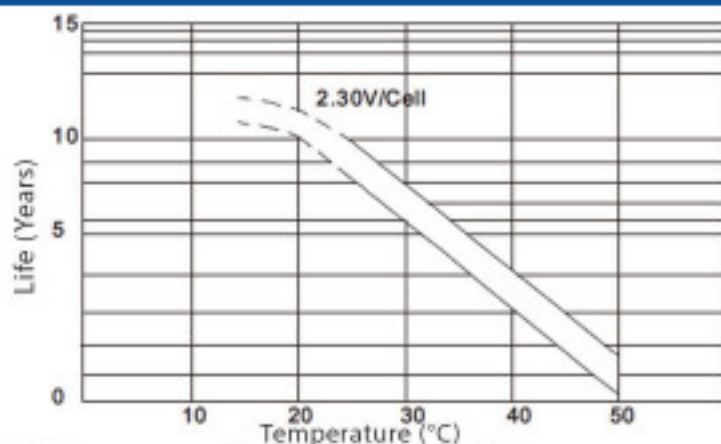
### Life characteristics of standby use



### Self-discharge characteristic



### Temperature effects on float life



### Charge characteristic Curve for standby use

