

# SP Series

## SP12-80 12V80Ah

SP series VRLA battery uses AGM technology and high-purity raw materials. Its good floating back up and large current discharge performance makes it optimal and economical choice for UPS/EPS.

### Benefits

- Long life according to EUROBAT Classification
- Maximum charge efficiency
- High gas recombination efficiency
- Low self-discharge rate
- Easy installation and handling
- Vertical installation

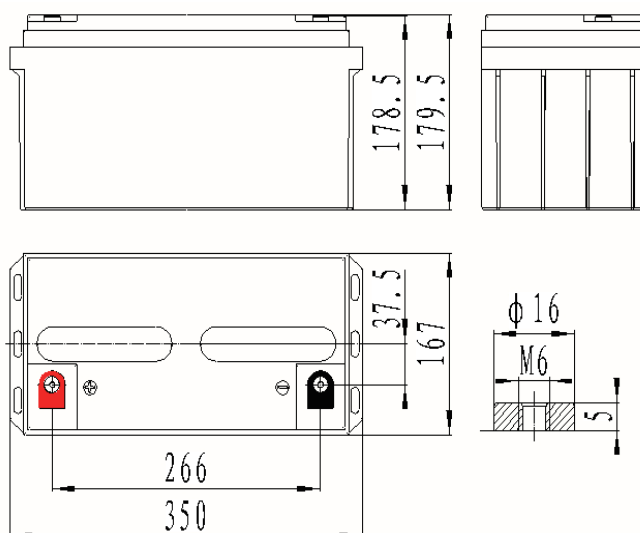
### Applications

- UPS units
- Emergency power
- Starting generators
- EPS units

### Standards

- IEC 61056-1/2
- JIS C8702-1/2
- EUROBAT guide

### Drawing



### Specifications

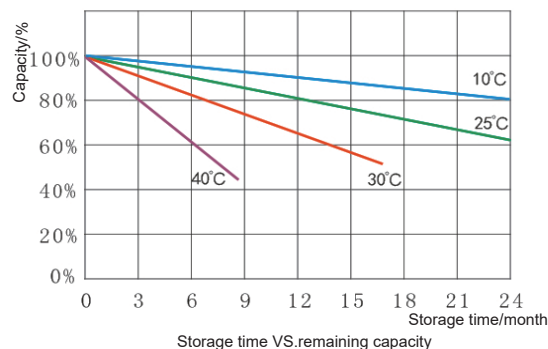
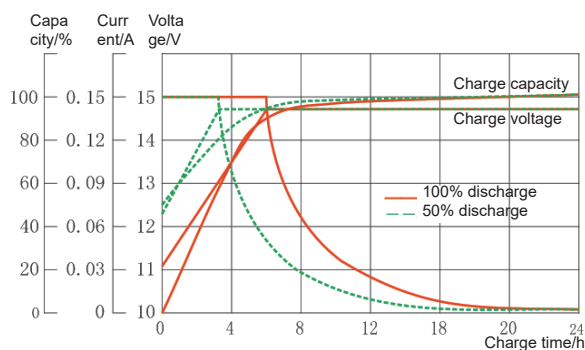
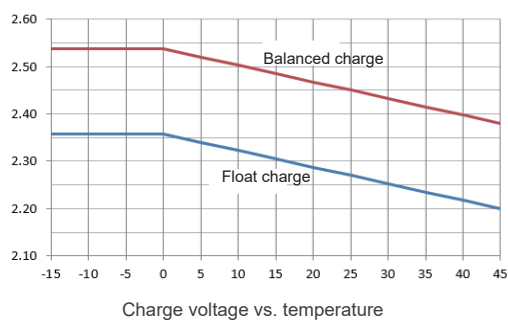
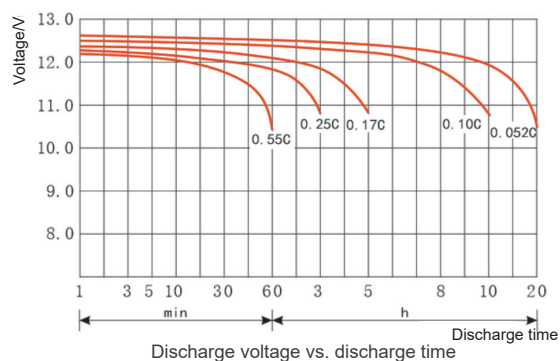
|                                    |                                                          |                     |                       |                   |
|------------------------------------|----------------------------------------------------------|---------------------|-----------------------|-------------------|
| Battery Model                      | SP12-80                                                  |                     |                       |                   |
| Design Life (years, 25°C)          | 10                                                       |                     |                       |                   |
| Capacity (Ah, 25°C)                | 20HR (4.10A, 1.80V)                                      | 10HR (8.00A, 1.80V) | 5HR (13.5A, 1.75V)    | 1HR(45.0A, 1.70V) |
|                                    | 82.0                                                     | 80                  | 67.5                  | 45.0              |
| Dimensions (mm)                    | Length                                                   | Width               | Height                | Total Height      |
|                                    | 350                                                      | 167                 | 178.5                 | 179.5             |
| Approx. Weight (kg)                | 23.2                                                     |                     |                       |                   |
| Reference Internal Resistance (mΩ) | 5.0±15%( full charged @ 25°C,testing device:HIOKIBT3562) |                     |                       |                   |
| Self-Discharge (25°C)              | ≤ 2% per month                                           |                     |                       |                   |
| Charge Voltage (V/cell, 25°C)      | Cycle use                                                |                     | Float use             |                   |
|                                    | 2.40 (-3.5mV/°C/cell), max charge current: 20 A          |                     | 2.27 (-3.5mV/°C/cell) |                   |
| Short Circuit Current (A)          | 2400(for reference only)                                 |                     |                       |                   |

## Discharge Data

| Constant Current Discharge Data (25°C, A) |     |     |      |      |      |      |      |      |      |      |      |      |
|-------------------------------------------|-----|-----|------|------|------|------|------|------|------|------|------|------|
| End Voltage<br>(V/cell)                   | min |     |      |      |      | h    |      |      |      |      |      |      |
|                                           | 10  | 15  | 20   | 30   | 45   | 1    | 1.5  | 2    | 3    | 5    | 10   | 20   |
| 1.60                                      | 164 | 137 | 110  | 82.6 | 58.7 | 46.5 | 34.6 | 29.2 | 20.8 | 13.7 | 8.27 | 4.24 |
| 1.65                                      | 160 | 133 | 108  | 81.0 | 57.7 | 45.7 | 34.3 | 29.0 | 20.6 | 13.7 | 8.20 | 4.22 |
| 1.67                                      | 157 | 131 | 107  | 80.5 | 57.3 | 45.3 | 34.1 | 28.9 | 20.5 | 13.6 | 8.18 | 4.21 |
| 1.70                                      | 154 | 128 | 105  | 80.0 | 56.8 | 45.0 | 34.0 | 28.8 | 20.4 | 13.6 | 8.16 | 4.20 |
| 1.75                                      | 150 | 125 | 102  | 78.0 | 55.5 | 44.0 | 33.7 | 28.5 | 20.2 | 13.5 | 8.08 | 4.16 |
| 1.80                                      | 144 | 120 | 98.5 | 75.3 | 53.7 | 42.8 | 33.0 | 28.0 | 20.0 | 13.4 | 8.00 | 4.10 |

| Constant Power Discharge Data (25°C, W/cell) |     |     |     |     |     |      |      |      |      |      |      |      |
|----------------------------------------------|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| End Voltage<br>(V/cell)                      | min |     |     |     |     | h    |      |      |      |      |      |      |
|                                              | 10  | 15  | 20  | 30  | 45  | 1    | 1.5  | 2    | 3    | 5    | 10   | 20   |
| 1.60                                         | 298 | 248 | 203 | 150 | 114 | 86.3 | 69.4 | 55.5 | 39.6 | 26.5 | 16.2 | 8.25 |
| 1.65                                         | 295 | 246 | 200 | 148 | 112 | 85.3 | 68.7 | 55.0 | 39.4 | 26.3 | 16.0 | 8.20 |
| 1.67                                         | 292 | 244 | 198 | 147 | 111 | 84.7 | 68.5 | 54.8 | 39.3 | 26.3 | 15.9 | 8.18 |
| 1.70                                         | 290 | 242 | 196 | 147 | 110 | 84.2 | 68.3 | 54.7 | 39.2 | 26.3 | 15.8 | 8.17 |
| 1.75                                         | 280 | 234 | 193 | 145 | 108 | 83.0 | 67.7 | 54.0 | 39.0 | 26.0 | 15.6 | 8.14 |
| 1.80                                         | 268 | 224 | 187 | 140 | 107 | 81.2 | 66.9 | 53.2 | 38.7 | 25.8 | 15.4 | 8.07 |

## Performance Curve



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