

SP Series

SP12-120 12V120Ah

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

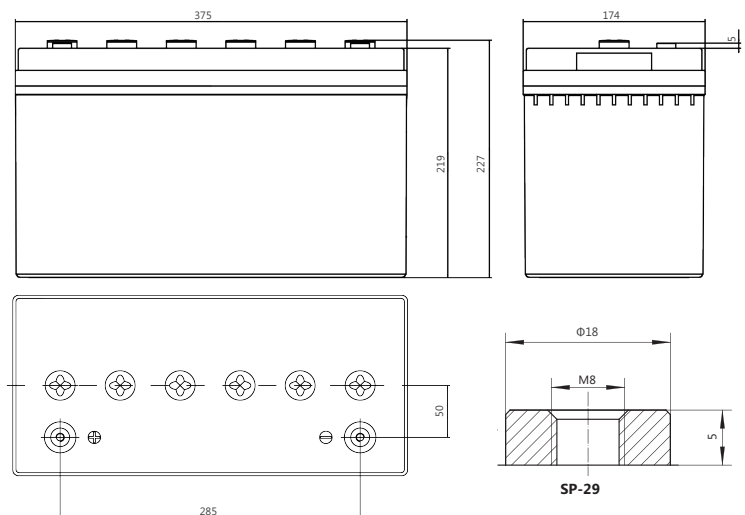
Applications

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

Standards

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

Drawing



Specifications

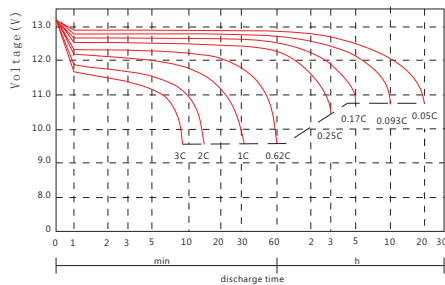
| | | | | |
|--------------------------------------|---|-------------------|-----------------------|-------------------|
| Battery Model | SP12-120 | | | |
| Design Life (years, 25°C) | 10 | | | |
| Capacity (Ah, 25°C) | 20HR (6.2.0A, 1.80V) | 10HR (12A, 1.80V) | 5HR (20.4A, 1.75V) | 1HR(68.0A, 1.70V) |
| | 124 | 120 | 102 | 68 |
| Dimensions (mm) | Length | Width | Height | Total Height |
| | 375 | 174 | 219 | 227 |
| Approx. Weight (kg) | 33.5 | | | |
| Reference Internal Resistance (mΩ) | 4.6 ±15%(full charged @ 25°C,testing device:HIOKIBT3562) | | | |
| Maximum Discharge Current (A/3 Sec.) | 1200 | | | |
| 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: 36A | | 2.27 (-3.5mV/°C/cell) | |
| Short Circuit Current (A) | 2900 | | | |

Discharge Data

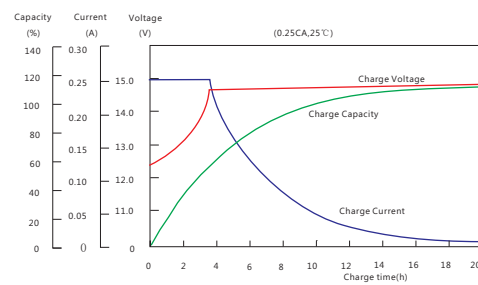
| Constant Current Discharge Data (25°C, A) | | | | | | | | | | | | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| End Voltage (V/cell) | min | | | | | h | | | | | | |
| | 10 | 15 | 20 | 30 | 45 | 1 | 1.5 | 2 | 3 | 5 | 10 | 20 |
| 1.60 | 260.0 | 260.0 | 174.5 | 132.0 | 92.60 | 71.60 | 53.70 | 44.50 | 32.20 | 21.73 | 12.40 | 6.550 |
| 1.65 | 256.0 | 256.0 | 170.0 | 128.9 | 91.00 | 69.80 | 53.00 | 43.64 | 31.79 | 21.25 | 12.32 | 6.450 |
| 1.70 | 246.0 | 246.0 | 163.9 | 126.0 | 88.80 | 68.00 | 52.00 | 42.74 | 31.24 | 20.75 | 12.25 | 6.370 |
| 1.75 | 232.0 | 232.0 | 157.4 | 122.0 | 85.50 | 66.00 | 50.80 | 42.00 | 30.60 | 20.40 | 12.18 | 6.300 |
| 1.80 | 214.0 | 214.0 | 146.8 | 114.0 | 80.80 | 63.00 | 48.50 | 40.50 | 29.50 | 19.70 | 12.00 | 6.200 |

| Constant Power Discharge Data (25°C, W/cell) | | | | | | | | | | | | |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| End Voltage (V/cell) | min | | | | | h | | | | | | |
| | 10 | 15 | 20 | 30 | 45 | 1 | 1.5 | 2 | 3 | 5 | 10 | 20 |
| 1.60 | 444.0 | 370.0 | 301.8 | 237.0 | 177.0 | 134.5 | 105.0 | 82.79 | 61.40 | 40.31 | 24.84 | 13.14 |
| 1.65 | 438.0 | 365.0 | 296.7 | 232.4 | 174.9 | 131.7 | 104.0 | 81.86 | 60.80 | 39.79 | 24.60 | 12.94 |
| 1.70 | 428.0 | 357.0 | 290.5 | 227.3 | 171.5 | 128.9 | 103.0 | 80.93 | 60.20 | 39.48 | 24.41 | 12.83 |
| 1.75 | 410.0 | 342.0 | 282.6 | 221.7 | 168.1 | 126.5 | 101.4 | 80.15 | 59.63 | 39.02 | 24.20 | 12.65 |
| 1.80 | 384.0 | 320.0 | 269.1 | 215.0 | 163.0 | 123.2 | 99.00 | 78.70 | 58.50 | 38.50 | 23.90 | 12.46 |

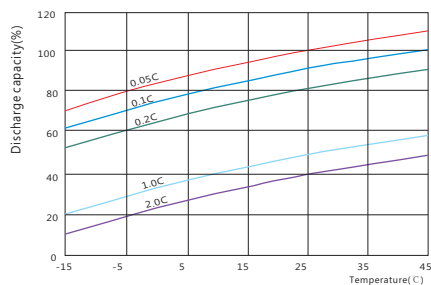
Performance Curve



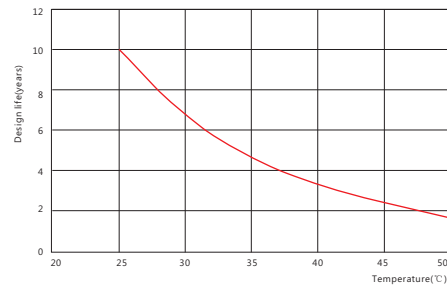
Discharge voltage vs. discharge time



Charge capacity vs. charge time



Discharge capacity vs. temperature



Design life vs. temperature

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