

SP-12-200D (12V200Ah)

Specification

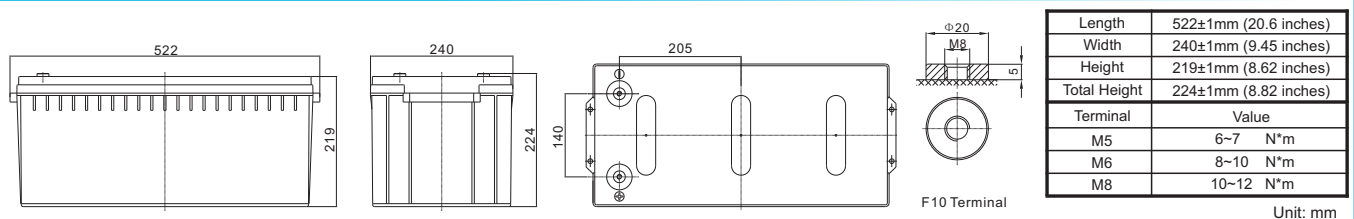
| | |
|------------------------------------|--|
| Cells Per Unit | 6 |
| Voltage Per Unit | 12 |
| Capacity | 200Ah@10hr-rate to 1.80V per cell @25°C |
| Weight | Approx. 60.0 Kg (Tolerance ± 1.5%) |
| Internal Resistance | Approx. 4 mΩ |
| Terminal | F10(M8)/F16(M8) |
| Max. Discharge Current | 2000A (5 sec) |
| Design Life | 12 years (floating charge) |
| Maximum Charging Current | 60.0 A |
| Reference Capacity | C3 154.8AH C5 176.0AH C10 200.0AH C20 210.0AH |
| Float Charging Voltage | 13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell |
| Cycle Use Voltage | 14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell |
| Operating Temperature Range | Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C |
| Normal Operating Temperature Range | 25°C ± 5°C |
| Self Discharge | The Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charged batteries before using. |
| Container Material | A.B.S. UL94-HB, UL94-V0 Optional. |



SPD (Deep Cycle) series batteries provide superior high integrity and reliability. It is specially designed for frequent cyclic charge and discharge. By using strong grids, thick plate and specially active material are designed for repeated deep-discharge applications. The SPD series batteries offers 30% more cyclic life than the standby series. It is suitable for solar and wind renewable energy storage, mobility and medical equipment, RV, telecom, broadband and cable TV, UPS systems etc.



Dimensions



Constant Current Discharge Characteristics : A(25°C)

| F.V/Time | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 1.60V | 417.6 | 329.1 | 190.8 | 119.8 | 74.0 | 55.1 | 44.1 | 37.1 | 25.3 | 21.5 | 10.9 |
| 1.65V | 403.7 | 319.3 | 186.8 | 117.5 | 72.7 | 54.3 | 43.4 | 36.7 | 25.1 | 21.3 | 10.8 |
| 1.70V | 385.5 | 306.3 | 181.5 | 114.5 | 71.0 | 53.2 | 42.6 | 36.1 | 24.7 | 21.0 | 10.7 |
| 1.75V | 361.2 | 289.0 | 174.3 | 110.4 | 68.8 | 51.6 | 41.5 | 35.2 | 24.2 | 20.6 | 10.5 |
| 1.80V | 328.7 | 265.6 | 164.4 | 104.8 | 65.6 | 49.5 | 40.0 | 34.0 | 23.4 | 20.0 | 10.3 |
| 1.85V | 284.3 | 233.3 | 150.4 | 96.8 | 61.1 | 46.4 | 37.8 | 32.3 | 22.4 | 19.2 | 9.89 |

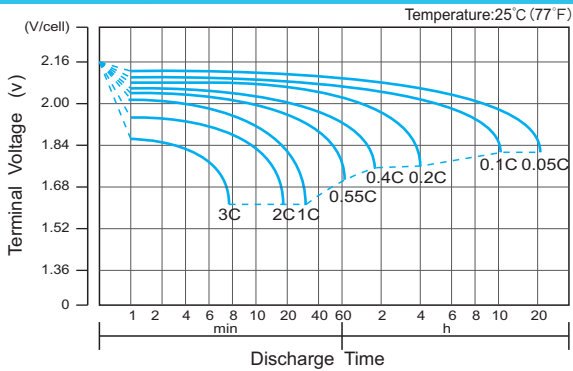
Constant Power Discharge Characteristics : WPC(25°C)

| F.V/Time | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-----|-----|------|------|------|------|------|------|
| 1.60V | 710 | 575 | 347 | 224 | 140 | 105 | 84.6 | 71.6 | 49.5 | 42.2 | 21.5 |
| 1.65V | 704 | 570 | 344 | 222 | 139 | 104 | 83.8 | 71.0 | 49.1 | 41.9 | 21.4 |
| 1.70V | 680 | 552 | 336 | 217 | 136 | 102 | 82.5 | 70.0 | 48.4 | 41.3 | 21.1 |
| 1.75V | 649 | 528 | 326 | 210 | 132 | 99.9 | 80.6 | 68.6 | 47.5 | 40.6 | 20.8 |
| 1.80V | 601 | 492 | 311 | 201 | 127 | 96.1 | 77.9 | 66.5 | 46.2 | 39.5 | 20.3 |
| 1.85V | 529 | 438 | 287 | 187 | 119 | 90.6 | 73.8 | 63.4 | 44.2 | 38.0 | 19.6 |

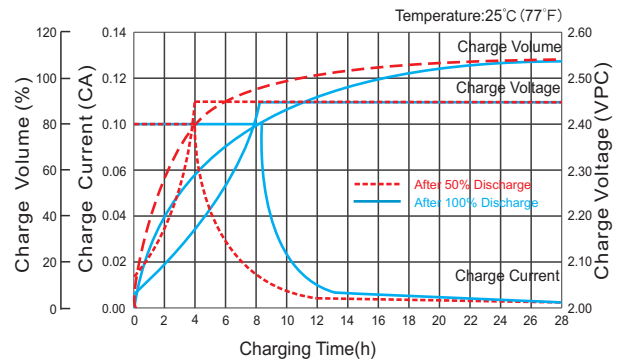
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

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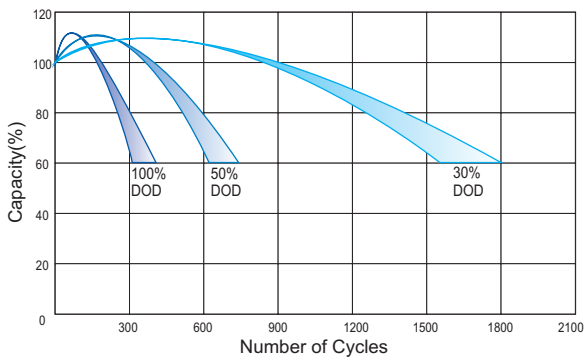
Discharge Characteristics Curve



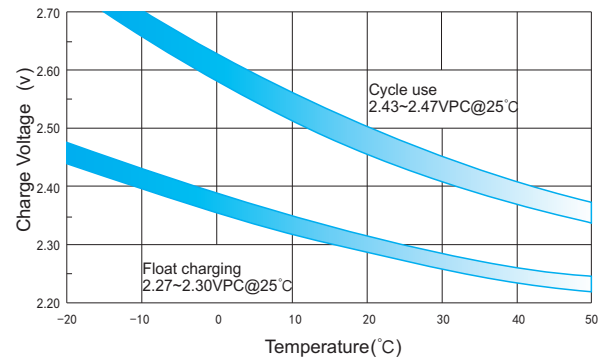
Charge Characteristic Curve for Cycle Use(IU)



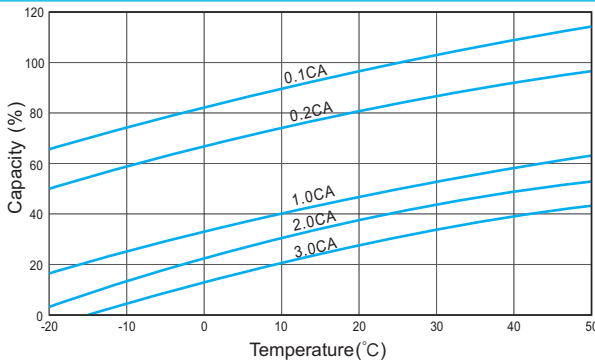
Cycle Life in Relation to Depth of Discharge



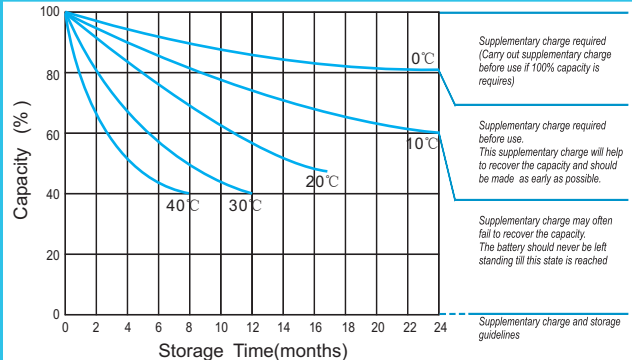
Relationship Between Charging Voltage and Temperature



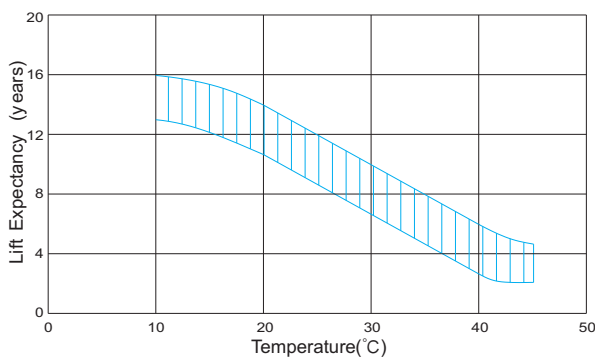
Temperature Effects on Capacity



Storage Characteristics



Effect of Temperature on Long Term Life



Relationship of OCV And State of Charge(20°C)

