

SBDC12-180(12V180Ah)

SKANBATT

Specification



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



ISO 9001

ISO 14001

ISO 45001

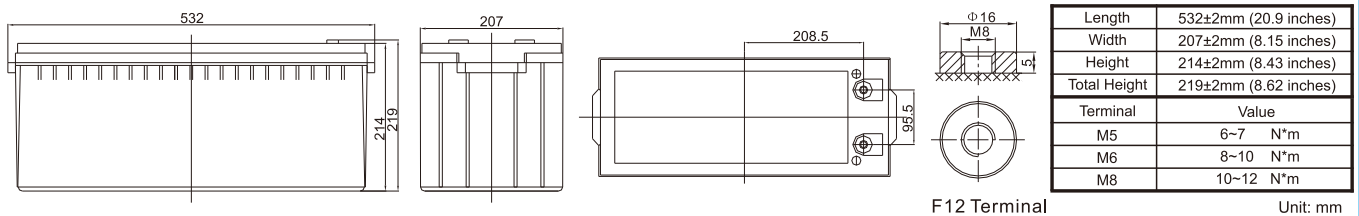


MH 28539

BSTXD210316008501EC

| | |
|------------------------------------|--|
| Cells Per Unit | 6 |
| Voltage Per Unit | 12V |
| Capacity | 180Ah@20hr-rate to 1.75V per cell @25°C |
| Weight | Approx. 51.0Kg (Tolerance ±5%) |
| Internal Resistance | ≤4.2mΩ (Full Charge Condition @25°C) |
| Terminal | Default F12(M8),F16(M8)&L6 Optional |
| Max. Discharge Current | 1800A (5 sec) |
| Design Life | 12 years |
| Max. Charging Current | 54.0A |
| Reference Capacity | C ₃ 135.0Ah C ₅ 153.0Ah C ₁₀ 171.4Ah C ₂₀ 180.0Ah |
| 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 | 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. |

Dimensions



Constant Current Discharge Characteristics : A(25°C)

| F.V/Time | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V | 393.4 | 315.6 | 194.1 | 109.3 | 65.11 | 50.71 | 39.78 | 33.84 | 21.70 | 18.00 | 9.329 |
| 1.65V | 362.3 | 295.1 | 183.8 | 105.6 | 62.92 | 49.15 | 38.59 | 32.77 | 21.53 | 17.83 | 9.279 |
| 1.70V | 335.8 | 277.6 | 174.3 | 102.2 | 61.25 | 47.08 | 37.40 | 31.89 | 21.19 | 17.49 | 9.162 |
| 1.75V | 308.1 | 260.0 | 167.4 | 99.00 | 58.90 | 45.87 | 36.38 | 31.00 | 20.85 | 17.31 | 9.000 |
| 1.80V | 280.4 | 238.1 | 161.2 | 94.60 | 56.88 | 45.00 | 35.53 | 30.60 | 20.51 | 17.14 | 8.913 |
| 1.85V | 219.4 | 197.0 | 136.7 | 84.45 | 52.02 | 41.88 | 33.32 | 28.17 | 19.31 | 16.11 | 8.830 |

Constant Power Discharge Characteristics : W/Cell (25°C)

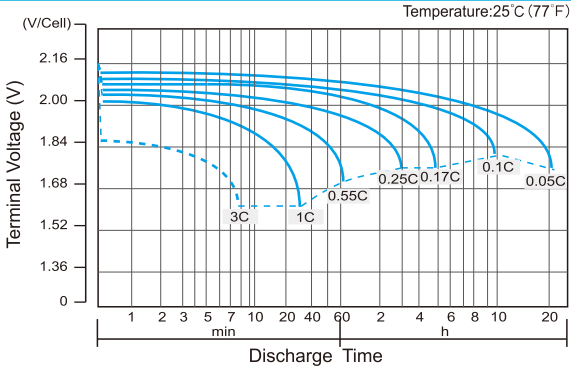
| F.V/Time | 10MIN | 15MIN | 30MIN | 1HR | 2HR | 3HR | 4HR | 5HR | 8HR | 10HR | 20HR |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.60V | 669.8 | 550.5 | 352.6 | 205.2 | 123.1 | 96.30 | 76.67 | 64.05 | 42.30 | 35.30 | 18.62 |
| 1.65V | 645.0 | 535.3 | 344.4 | 201.7 | 119.8 | 93.90 | 74.80 | 62.32 | 41.96 | 34.96 | 18.46 |
| 1.70V | 601.9 | 506.7 | 327.8 | 195.8 | 116.8 | 90.30 | 72.42 | 60.76 | 41.45 | 34.28 | 18.29 |
| 1.75V | 560.1 | 478.2 | 316.3 | 190.4 | 112.6 | 88.07 | 70.72 | 59.38 | 40.77 | 33.94 | 17.96 |
| 1.80V | 516.1 | 442.1 | 306.1 | 182.6 | 110.1 | 87.58 | 69.36 | 58.58 | 40.10 | 33.60 | 17.79 |
| 1.85V | 409.4 | 371.4 | 262.5 | 164.0 | 101.3 | 81.69 | 65.28 | 54.18 | 37.90 | 31.74 | 17.63 |

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values. The battery must be fully charged before the capacity test. The C₂₀ should reach 95% after the first cycle and 100% after the third cycle.

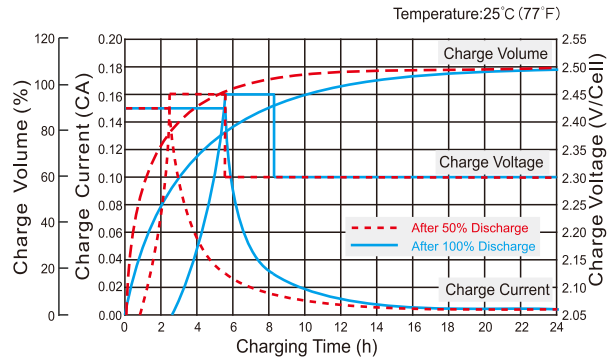
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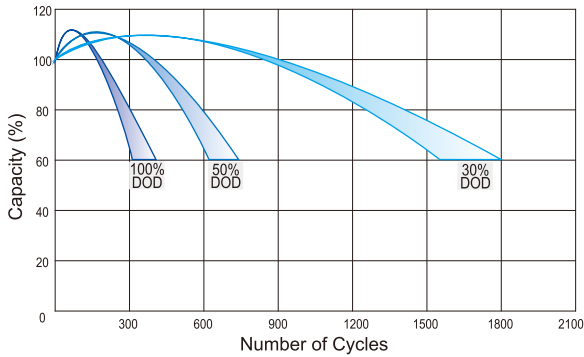
Discharge Characteristics Curve



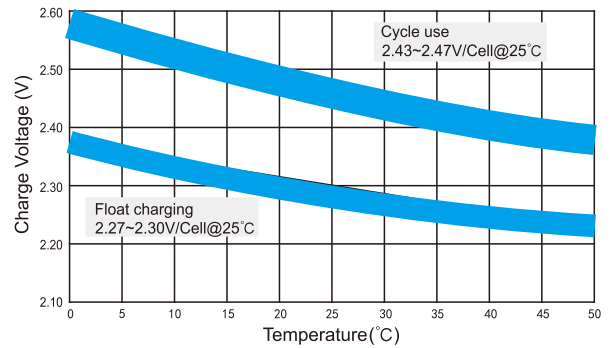
Charge Characteristic Curve for Cycle Use(IUU)



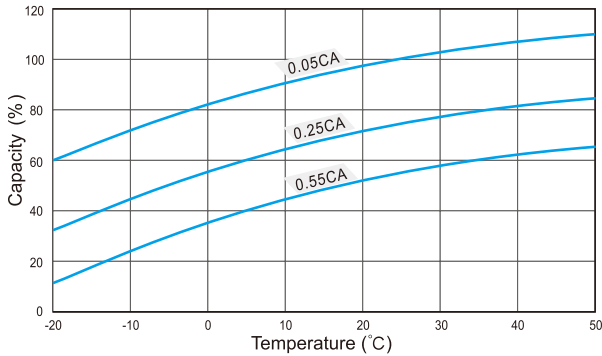
Cycle Life in Relation to Depth of Discharge



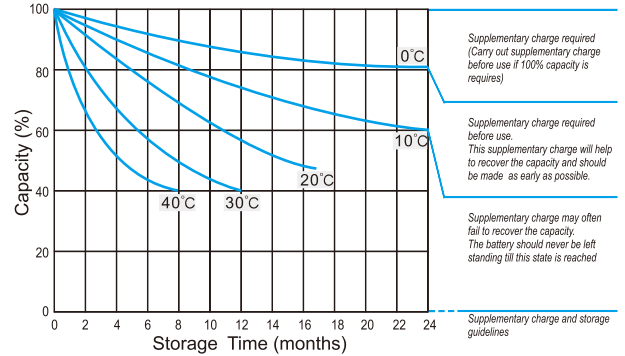
Relationship Between Charging Voltage and Temperature



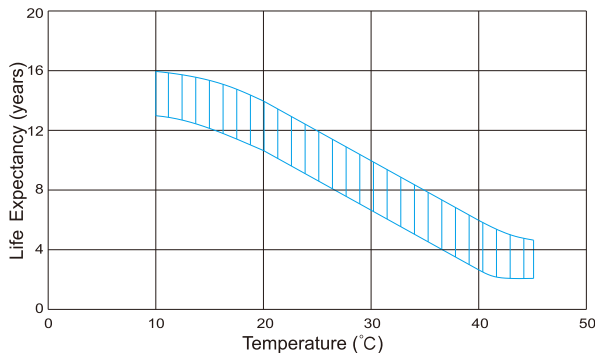
Temperature Effects on Capacity



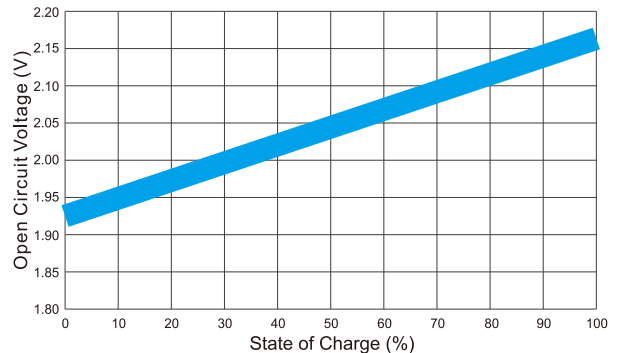
Storage Characteristics



Effect of Temperature on Long Term Life



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



(Note) All above information shall be changed without prior notice, RITAR reserves the right to explain and update the latest information.