# DC180-8A DATA SHEET

## DC180-8A

**180AH@20HR**
**8-Volt**

**DEEP CYCLE**

**Maintenance-Free**
**Sealed AGM Battery**

## Nominal Specifications

| Battery Model | DC180-8A | Rated Capacity | 180AH/20HR |
|---|---|---|---|

## Mechanical Specifications

| | | |
|---|---|---|
| **Group Size** | GC8 | |
| **Overall Height (H)** | 272±2mm | 10.71" |
| **Container Height (h)** | 268±2mm | 10.55" |
| **Length** | 260±2mm | 10.24" |
| **Width** | 182±2mm | 7.17" |
| **Weight** | Approx.34.2kg | 75.40lbs. |
| **Terminal Type** | M8-Button Terminal | |
| **Terminal Torque** | 9.6-10.7N.m | |
| **Container Material** | ABS：Standard（UL 94-HB） | |

## Temperature Range Specifications

| | |
|---|---|
| **Operating Temperature Range** | Discharge : -15℃ ~+ 50℃ (5℉~122℉) |
| | Charge: -15℃ ~ +40℃ (5℉~104℉) |
| | Storage: -15℃ ~ +40℃ (5℉~104℉) |
| **Recommended Operating Temperature Range** | +74℉(23℃) to +80℉(27℃) |
| **Self-Discharge** | Less than 10% after 90 days, can be stored up to 6 months at 25℃ (77℉);Fully recharging is required before usage, For higher temperatures the time interval will be shorter. |

## Electrical Specifications

| | |
|---|---|
| **C100** | 198AH |
| **C20** | 180AH |
| **C10** | 144AH |
| **C5** | 147.5AH |
| **CCA** | 940A |
| **CA or MCA** | 1125A |
| **HPCA** | 1350A |
| **Max. Discharge Current** | 1800A (5s) |
| **Internal Resistance** | 1.8 mΩ |

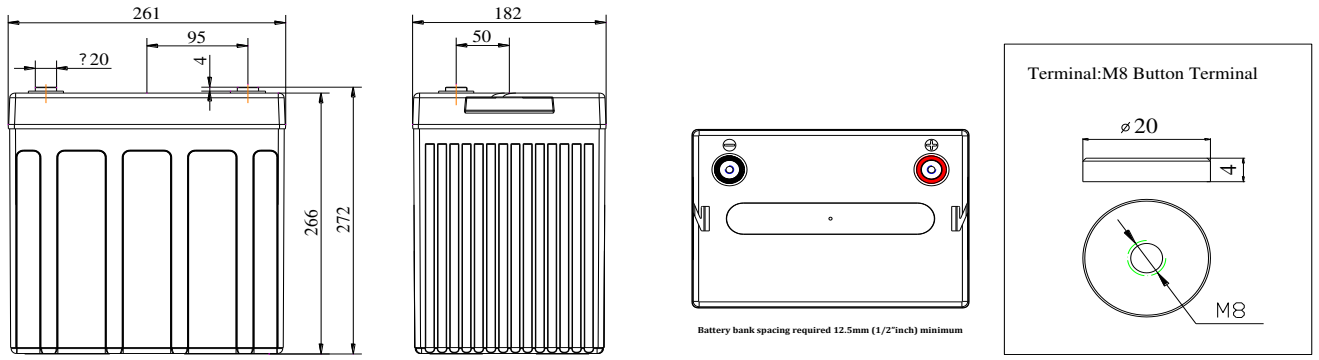
## Reserve Capacity

| | |
|---|---|
| **Reserve @25 AMPS** | 335 Minutes |
| **Reserve @56 AMPS** | 125 Minutes |

## Charge Voltages

| | | |
|---|---|---|
| **Float Charging Voltage** | 9.0 to 9.2 VDC/unit@ (25°C) | |
| **Equalization and Cycle Service Charging Voltage** | 9.53 to 9.67 VDC/unit @(25°C) | |
| **Maximum Charge Current(A)** | 45 A | |
| **Charging Temperature Compensation** | Cycle use | -4mV/cell/℃ |
| | Float use | -3mV/cell/℃ |

## BATTERY & TERMINAL DIMENSIONS (All units shown in mm)




## Constant Current Discharge Rating Amperes @ 77℉(25℃)

| Cut off voltage V/cell | 15M | 30M | 45M | 1H | 2H | 3H | 5H | 8H | 10H | 12H | 20H |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.75V | 260 | 168 | 124 | 102.3 | 63.2 | 45.5 | 29.0 | 20.0 | 16.5 | 13.95 | 9.00 |

**Note** The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.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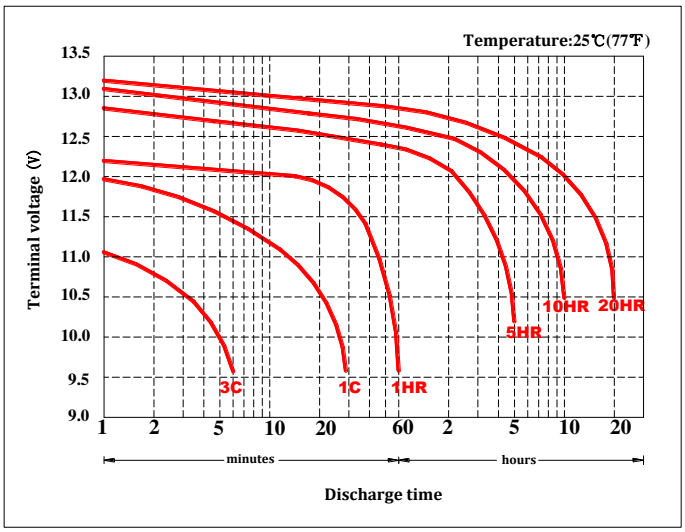
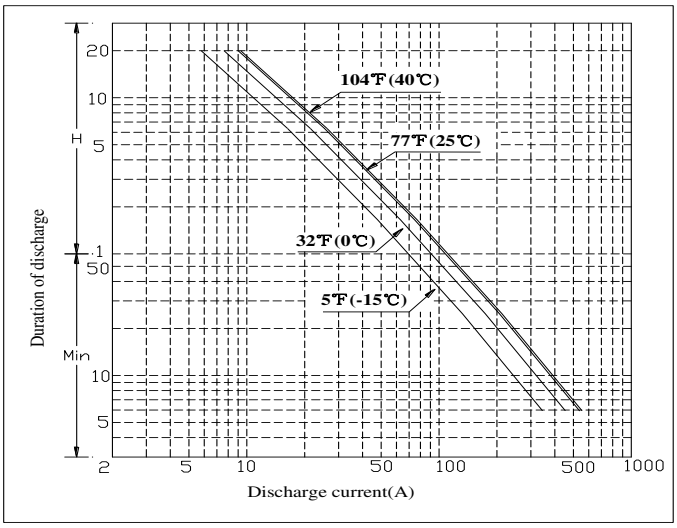
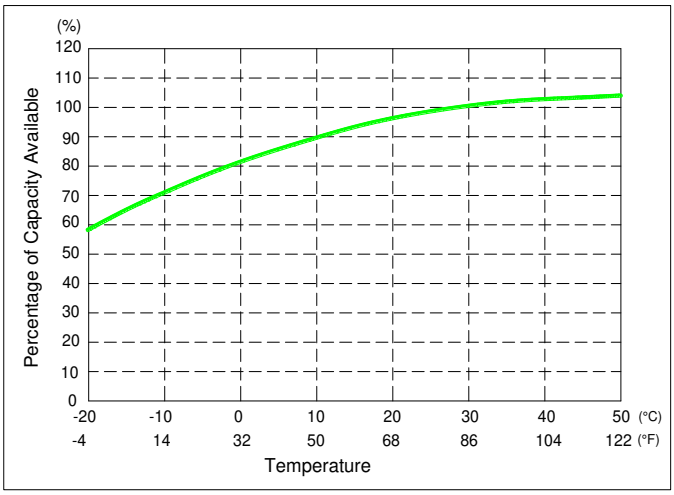
## Terminal Voltage(V) and Discharge Time



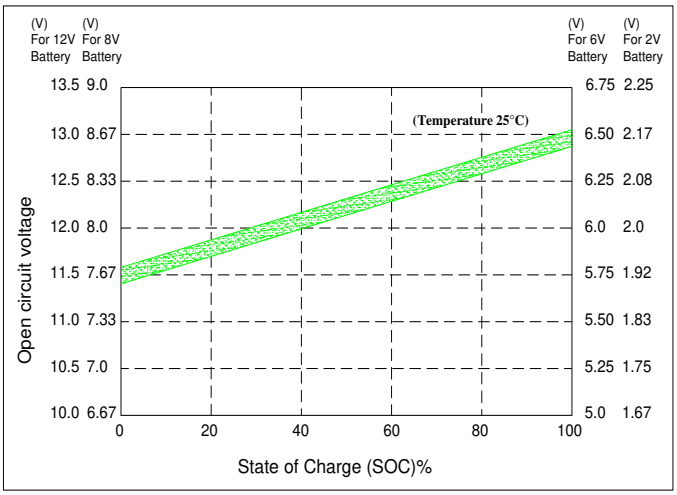

## Duration of discharge vs. Discharge current



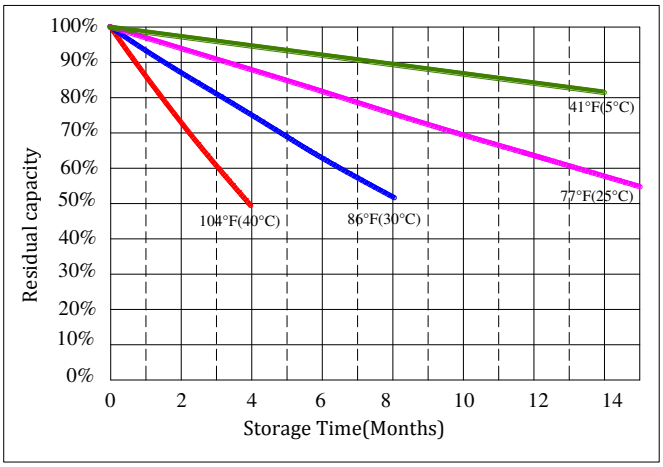

## Percent Capacity vs. Temperature



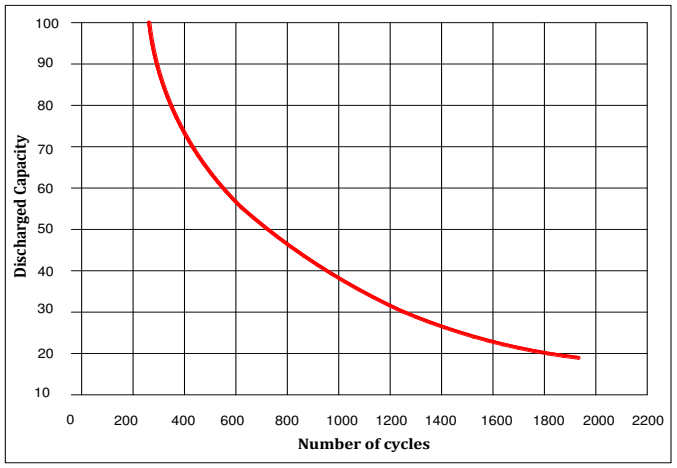

## State of Charge(SOC) vs Open Circuit Voltage(OCV)




## Capacity Retention Characteristic




## Cycle Life vs. Depth of Discharge(DOD)





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