

DC180-12 DATA SHEET



DC180-12

180AH@20HR

12-Volt

DEEP CYCLE

**Maintenance-Free
Sealed AGM Battery**

Nominal Specifications

| | | | |
|---------------|----------|----------------|------------|
| Battery Model | DC180-12 | Rated Capacity | 180AH/20HR |
|---------------|----------|----------------|------------|

Mechanical Specifications

| | | |
|----------------------|--------------------------|------------|
| Group Size | 4D | |
| Overall Height (H) | 218±2mm | 8.58" |
| Container Height (h) | 214±2mm | 8.43" |
| Length | 530±2mm | 20.87" |
| Width | 209±2mm | 8.23" |
| Weight | Approx.56.8kg | 125.22lbs. |
| Terminal Type | M8-Button Terminal | |
| Terminal Torque | 9.6-10.7 N.m | |
| Container Material | ABS: Standard (UL 94-HB) | |

Temperature Range Specifications

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

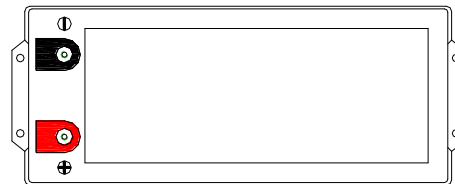
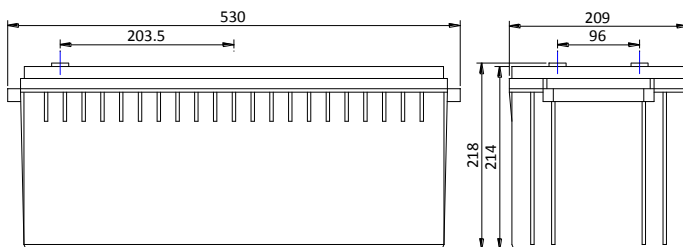
Electrical Specifications

| | |
|-------------------------|------------|
| C100 | 198AH |
| C20 | 180AH |
| C10 | 162AH |
| C5 | 147.5AH |
| CCA | 990A |
| CA or MCA | 1150A |
| HPCA | 1400A |
| Max. Discharge Current | 1800A (5s) |
| Internal Resistance | 3.0mΩ |
| Reserve Capacity | |
| Reserve @25 AMPS | 350Minutes |
| Reserve @75 AMPS | 85Minutes |

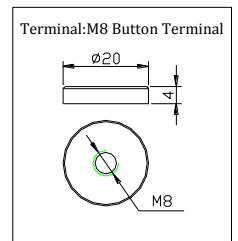
Charge Voltages

| | | |
|---|--------------------------------|--------------|
| Float Charging Voltage | 13.5 to 13.8 VDC/unit@ (25°C) | |
| Equalization and Cycle Service Charging Voltage | 14.3 to 14.5 VDC/unit @ (25°C) | |
| Maximum Charge Current(A) | 45A | |
| Charging Temperature Compensation | Cycle use | -4mV/cell/°C |
| | Float use | -3mV/cell/°C |

BATTERY & TERMINAL DIMENSIONS (All units shown in mm)



Battery bank spacing required 12.5mm (1/2"inch) minimum



Constant Current Discharge Rating Amperes @ 77°F (25°C)

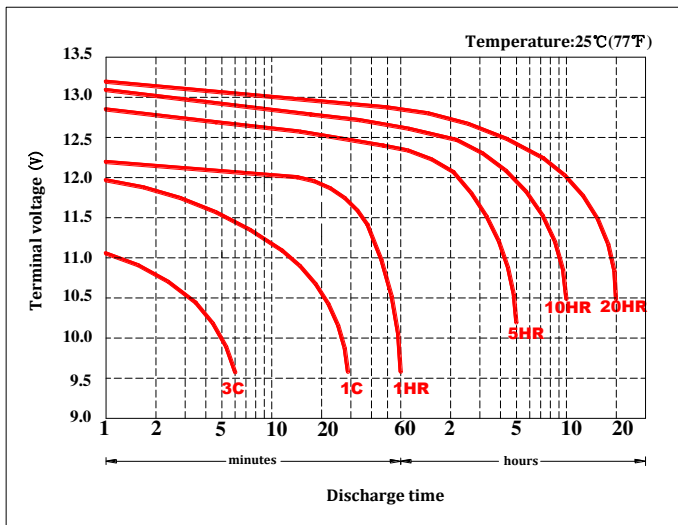
| | | | | | | | | | | | |
|------------------------|-----|-----|-----|-------|------|------|------|------|-------|-------|------|
| Cut off voltage V/cell | 15M | 30M | 45M | 1H | 2H | 3H | 5H | 8H | 10H | 12H | 20H |
| 1.75V | 252 | 168 | 124 | 102.3 | 54.2 | 40.7 | 28.6 | 19.6 | 16.20 | 13.80 | 9.00 |

Note The above data are average values, and can be obtained with 3 charge/discharge cycles. These are not minimum values.

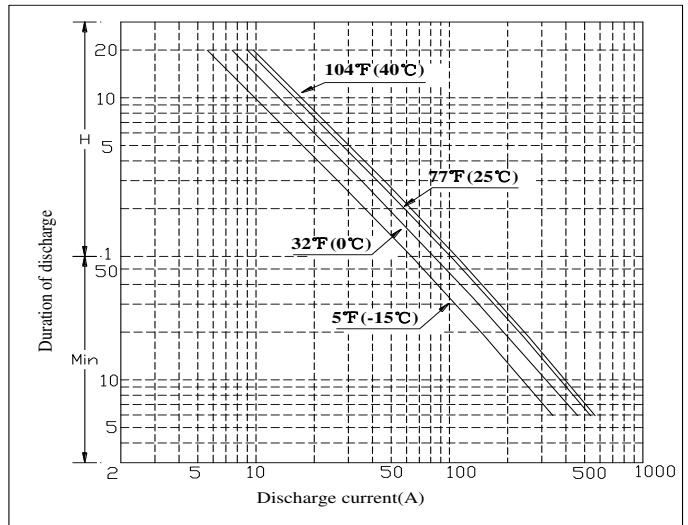


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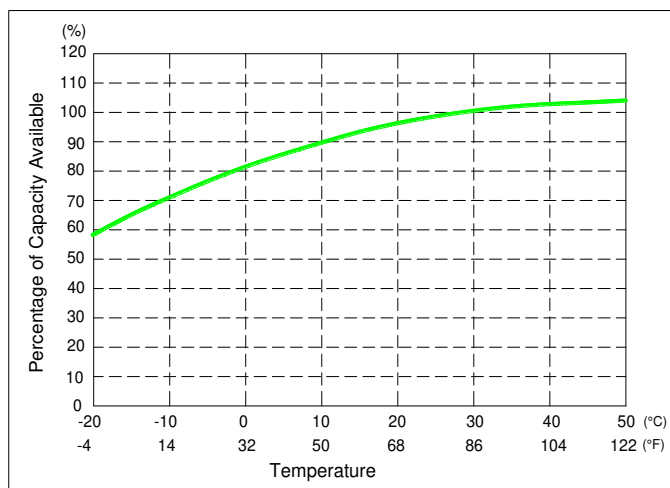
Terminal Voltage(V) and Discharge Time



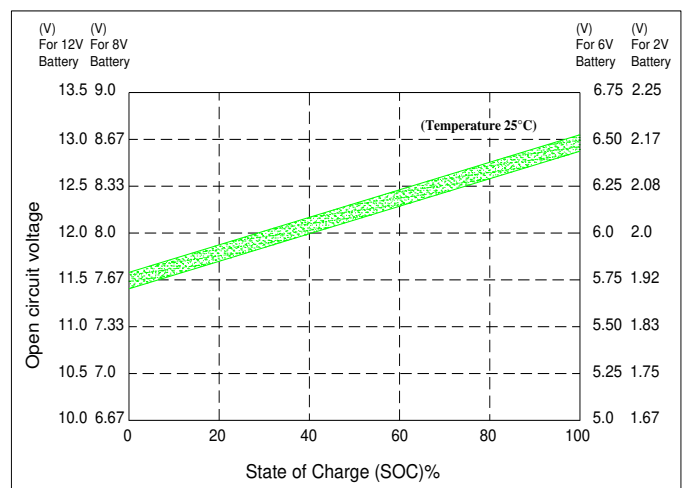
Duration of discharge vs. Discharge current



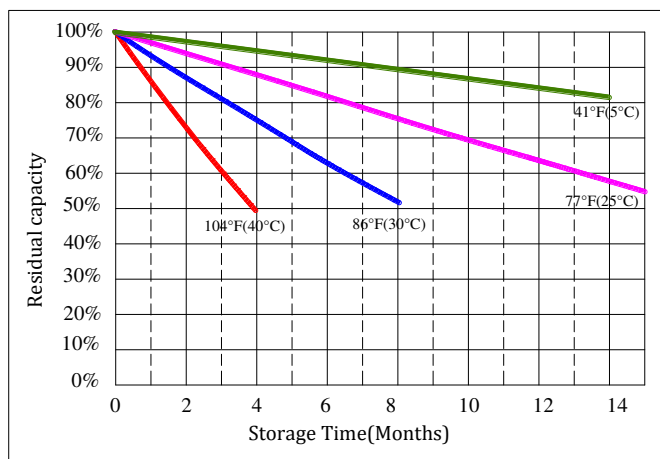
Percent Capacity vs. Temperature



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



Capacity Retention Characteristic



Cycle Life vs. Depth of Discharge(DOD)

