

TECHNICAL DATA SHEET

DAB12-55



Applications



CYCLIC



STATIONARY



SOLAR



MARINE

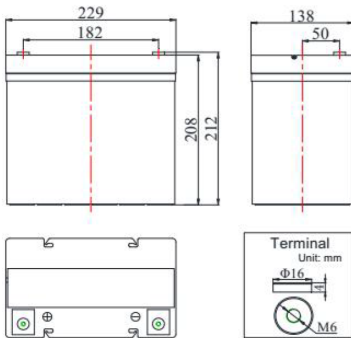
The DAB series batteries are designed to have a large amount of stored current discharged between charging sessions, with very heavy non-porous battery plates to withstand repeated major discharging and charging cycle (deep cycle). The Deep-cycle batteries use a different chemistry for the plates active paste material, and a slightly stronger electrolyte than normal battery electrolyte, which allows for a much longer life in deep cycle applications.

GENERAL FEATURES

- Able to operate at 60°C
- Integrated design to ensure the best uniformity and reliability
- Long life and high stability under high temp. environment (no air-con needed)
- Use super-C additives: Deep discharge recovery capability

DIMENSIONS & WEIGHT

| | |
|------------------|-----------|
| Length(mm) | 229 ± 1 |
| Width(mm) | 138 ± 1 |
| Height(mm) | 208 ± 1 |
| Total Height(mm) | 212 ± 1 |
| Weight(kg) | 16.0 ± 3% |



APPLICATIONS

- BTS Stations
- Solar & Wind energy system
- UPS system
- Telecom systems
- Wheel chair, Golf Car

12V
Voltage

55Ah
Capacity

AGM
Technology

Deep
Cycle



COMPLIED STANDARDS

| | |
|-----------------|--------------|
| IEC 60896-21/22 | JIS C8704 |
| YD/T1360 | BS6290 part4 |
| GB/T 19638 | UL 1989 |

TECHNICAL SPECIFICATIONS

| | | |
|---|---------------------------|--|
| Nominal Voltage | | 12V(6 cells per unit) |
| Design Floating Life @25°C | | 12~15 Years |
| Nominal Capacity @25°C (20 hour rate@2.75A,10.8V) | | 56,2Ah |
| Capacity @25°C | 10hour rate | 52.3Ah |
| | 5 hour rate | 44.50Ah |
| | 1 hour rate | 29.40Ah |
| Internal Resistance | Full Charged Battery@25°C | Approx. 9.6mΩ |
| Ambient Temperature | Discharge | -25°C~60°C |
| | Charge | -25°C~60°C |
| | Storage | -25°C~45°C |
| Max Discharge Current@25° C | | 550A(5S) |
| Capacity affected by Temperature (10 hour) | 40°C | 102% |
| | 25°C | 100% |
| | 0°C | 90% |
| | -15°C | 70% |
| Self-Discharge@25°C per Month | | 3% |
| Charge (Constant Voltage) @25°C | Standby Use | 13.6-13.8V(-20mV/°C) |
| | Cycle Use | 14.4-14.7V(-30mV/°C), max. Current: 12.40A |

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BATTERIES DIGITAL TABLE

Discharge Constant Current per Cell (Amperes at 25°C)

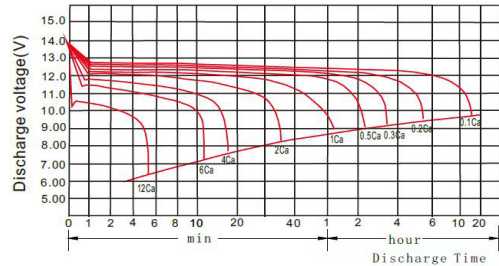
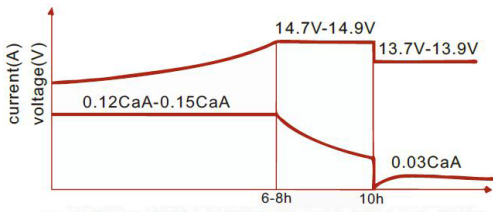
| F.V/Time | 15min | 30min | 45min | 1h | 2h | 3h | 5h | 8h | 10h | 20h | 100h |
|----------|-------|-------|-------|------|------|------|-----|-----|------|------|------|
| 1.60V | 70.8 | 45.2 | 33.2 | 30.6 | 19.4 | 13.6 | 9.2 | 6.1 | 5.45 | 2.92 | 0.66 |
| 1.67V | 69.5 | 44.4 | 32.6 | 30.0 | 19.0 | 13.4 | 9.1 | 6.0 | 5.34 | 2.86 | 0.65 |
| 1.70V | 68.2 | 43.6 | 32.0 | 29.4 | 18.7 | 13.1 | 8.9 | 5.9 | 5.23 | 2.81 | 0.63 |
| 1.75V | 66.9 | 42.7 | 31.4 | 28.9 | 18.3 | 12.9 | 8.7 | 5.8 | 5.17 | 2.75 | 0.62 |
| 1.80V | 64.4 | 41.1 | 30.2 | 27.8 | 17.6 | 12.4 | 8.4 | 5.6 | 5.01 | 2.72 | 0.61 |

Discharge Constant Power per Cell (Watts at 25°C)

| F.V/Time | 15min | 30min | 45min | 1h | 2h | 3h | 5h | 8h | 10h | 20h | 100h |
|----------|-------|-------|-------|------|------|------|------|------|------|-----|------|
| 1.60V | 136.2 | 87.0 | 64.0 | 58.7 | 37.3 | 26.2 | 17.8 | 11.7 | 10.5 | 5.7 | 1.27 |
| 1.67V | 133.8 | 85.4 | 62.8 | 57.6 | 36.6 | 25.7 | 17.5 | 11.6 | 10.3 | 5.6 | 1.24 |
| 1.70V | 131.3 | 83.8 | 61.6 | 56.5 | 36.0 | 25.2 | 17.2 | 11.3 | 10.1 | 5.5 | 1.22 |
| 1.75V | 128.8 | 82.2 | 60.4 | 55.5 | 35.3 | 24.8 | 16.8 | 11.1 | 9.9 | 5.4 | 1.20 |
| 1.80V | 123.9 | 79.1 | 58.1 | 53.4 | 33.9 | 23.8 | 16.2 | 10.7 | 9.5 | 5.3 | 1.18 |

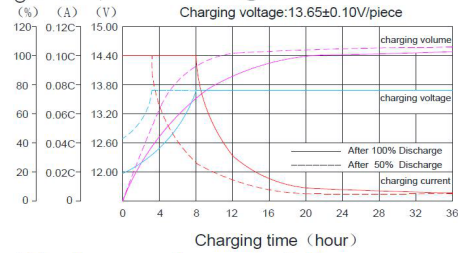
PERFORMANCE CHARACTERISTICS

When battery for Motive power

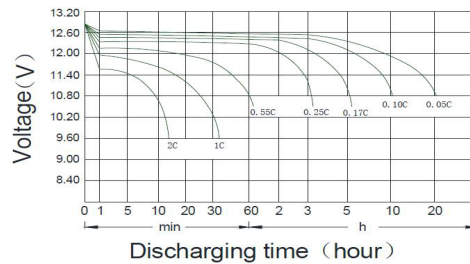


When battery for Storage power

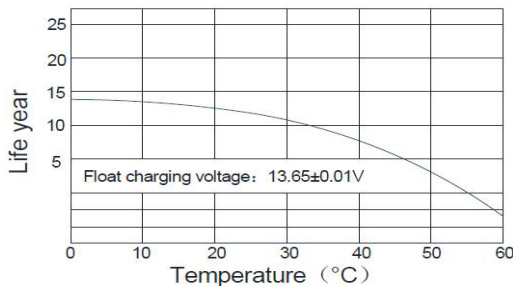
Charging characteristics @25°C/77°F



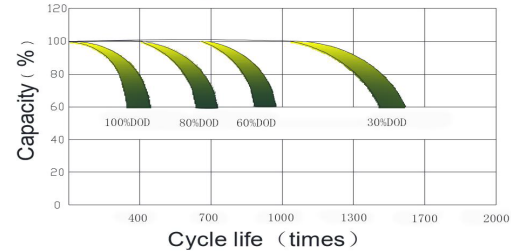
Discharge characteristics (@25°C/77°F)



Temperature effect on Design Service life

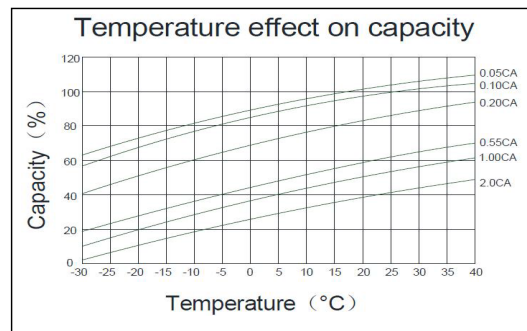
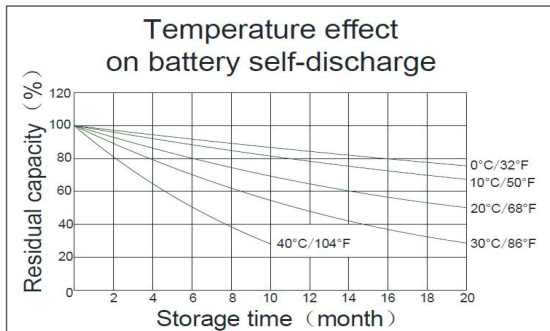


Cycle life vs. Depth of discharge @25°C/77°F



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BATTERY CONSTRUCTION

| Component | Positive plate | Negative plate | Container & Cover | Safety valve | Terminal | Separator | Electrolyte | Pillar seal |
|-----------|--|---|------------------------|---------------------------------------|---|--|-----------------------------------|-----------------------------|
| Features | Thick high Sn low Ca grid with special paste | Balanced Pb-Ca grid for improved recombination efficiency | ABS (UL94-V0 optional) | Flame Si-Rubber and aging resistancer | Female Copper Insert M8(torque:10 ~12N.m) | Advanced AGM separator for high pressure cell design | Dilute high purity sulphuric acid | Two layers epoxy resin seal |