

AGM Battery (YD Series) YD 12-55 (12V 55Ah)

Specifications

| | | |
|-------------------------------|---|--------------------------------|
| Rated Voltage | 12V | |
| Nominal Capacity | 55.0Ah | (C ₁₀ , 1.80V/cell) |
| Dimension | Length | 229±2mm (9.02 inches) |
| | Width | 138±2mm (5.43 inches) |
| | Container Height | 210±2mm (8.27 inches) |
| | Total Height | 230±2mm (9.06 inches) |
| Approx Weight | 17.7Kg (39.0lbs) | |
| Terminal | T9 | |
| Container Material | ABS | |
| Rated Capacity (25°C) | 59.0 Ah | (20hr, 2.95A, 1.80V/cell) |
| | 55.0 Ah | (10hr, 5.50A, 1.80V/cell) |
| | 51.0 Ah | (5hr, 10.2A, 1.75V/cell) |
| | 46.5 Ah | (3hr, 15.5A, 1.75V/cell) |
| | 35.8 Ah | (1hr, 35.8A, 1.60V/cell) |
| Max. Discharge Current | 550A (5s) | |
| Internal Resistance (25°C) | Approx 9.0mΩ | |
| Operating Temp. Range | Discharge | -15~50°C (5~122°F) |
| | Charge | -20~40°C (-4~104°F) |
| | Storage | -15~40°C (5~104°F) |
| Nominal Operating Temp. Range | 25±3°C (77±5°F) | |
| Cycle Use | Initial Charging Current less than 11.0A Voltage | |
| | 14.4V~14.7V at 25°C (77°F)Temp. Coefficient -30mV/°C | |
| Standby Use | Initial Charging Current less than 11.0A Voltage | |
| | 13.5V~13.8V at 25°C (77°F)Temp. Coefficient -20mV/°C | |
| Effect of temp. to Capacity | 40°C (104°F) | 103% |
| | 25°C (77°F) | 100% |
| | 0°C (32°F) | 86% |
| Self Discharge | YD series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter. | |



Applications

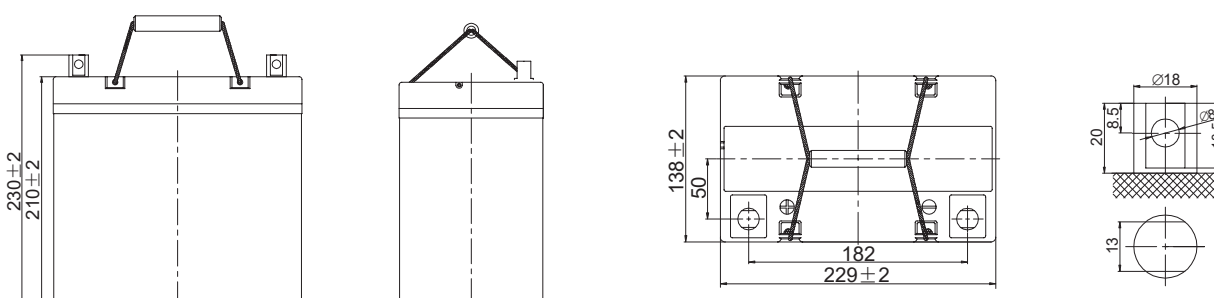
- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system



General Features

- 10 years float life (25°C)
- Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance
- PbCaSn alloy for plate grids: less gassing, less self-discharging
- High quality AGM separator: extend cycle life and prevent micro short circuit
- High purity raw material: ensure low self discharge rate

Layout



AGM Battery (YD Series) YD 12-55 (12V 55Ah)

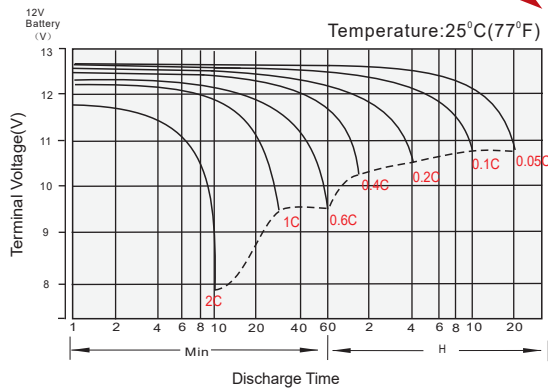
Constant Current Discharge (Amperes) at 25 °C (77°F)

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 83.0 | 76.6 | 56.6 | 50.6 | 37.0 | 31.3 | 19.1 | 14.0 | 11.0 | 9.54 | 8.41 | 6.47 | 5.36 | 2.84 |
| 1.80V/cell | 94.2 | 86.7 | 64.0 | 55.1 | 39.2 | 32.5 | 19.7 | 15.2 | 11.7 | 10.0 | 9.03 | 6.80 | 5.50 | 2.95 |
| 1.75V/cell | 102.2 | 94.0 | 69.1 | 56.2 | 40.6 | 34.1 | 20.8 | 15.5 | 12.0 | 10.2 | 9.10 | 6.84 | 5.67 | 2.97 |
| 1.70V/cell | 108.9 | 99.8 | 73.2 | 57.3 | 41.4 | 34.7 | 21.2 | 15.8 | 12.2 | 10.4 | 9.15 | 6.94 | 5.72 | 3.00 |
| 1.67V/cell | 112.4 | 102.7 | 75.2 | 58.2 | 42.0 | 35.3 | 21.5 | 15.9 | 12.3 | 10.6 | 9.19 | 7.04 | 5.80 | 3.04 |
| 1.60V/cell | 116.2 | 105.9 | 77.2 | 59.0 | 42.6 | 35.8 | 21.8 | 16.1 | 12.5 | 10.7 | 9.26 | 7.13 | 5.86 | 3.08 |

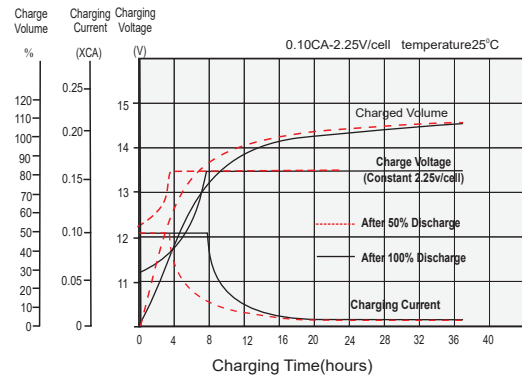
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 156.1 | 144.9 | 107.6 | 96.7 | 71.1 | 60.6 | 37.1 | 27.4 | 21.6 | 18.8 | 16.6 | 12.8 | 10.7 | 5.66 |
| 1.80V/cell | 174.7 | 162.2 | 120.4 | 104.4 | 74.9 | 62.4 | 38.2 | 29.6 | 22.9 | 19.7 | 17.8 | 13.5 | 11.1 | 5.86 |
| 1.75V/cell | 186.4 | 173.1 | 128.5 | 105.8 | 77.1 | 65.2 | 40.0 | 30.1 | 23.3 | 20.0 | 17.9 | 13.5 | 11.2 | 5.91 |
| 1.70V/cell | 196.0 | 182.0 | 135.1 | 107.0 | 78.1 | 66.2 | 40.7 | 30.5 | 23.6 | 20.2 | 17.9 | 13.7 | 11.3 | 5.96 |
| 1.67V/cell | 199.2 | 185.0 | 137.3 | 107.7 | 78.8 | 66.8 | 41.1 | 30.7 | 23.9 | 20.6 | 18.0 | 13.8 | 11.5 | 6.03 |
| 1.60V/cell | 201.9 | 187.5 | 139.2 | 108.2 | 79.2 | 67.3 | 41.4 | 30.8 | 24.0 | 20.8 | 18.0 | 14.0 | 11.6 | 6.09 |

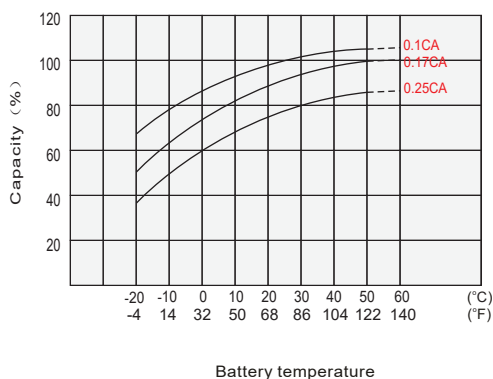
Discharge Characteristics



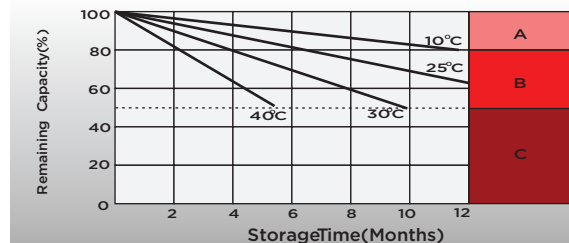
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Self Discharge Characteristics



- A** No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
3. Charged for 8-10 hours at limited current 0.05CA
- C** Supplementary charge may often fail to recover the capacity
The battery should never be left standing till this is reached.