# DATASHEET NM12-65

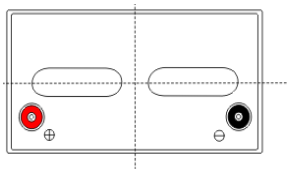
## Introduction

**Anda NM (33Ah-250Ah) series** is designed for standby use with 10-year design life in float service. The series battery is featured of high consistency, excellent performance and reliable standby service life. It is widely applied in float service, UPS/EPS, medical equipment, telecom, photovoltaic, control system and security system.

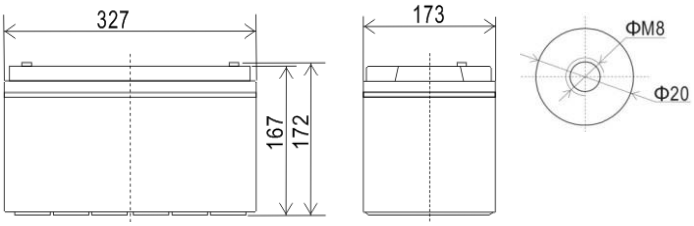
## Battery Features

- Increase durability and deep cycle ability for heavy demand applications
- Low self-discharge
- Fully tank formed plates
- Low impurity electrolyte
- Spill proof / leak proof
- Multi-position usage
- ABS case and cover VO upon request
- Very high purity lead

## Battery Picture & Terminal Layout



Terminal Type: T13




## Electrical Specification

| | |
|---|---|
| Design floating Life @ 20°C (68°F) | 10 years |
| Nominal Capacity @ 25°C /77°F | |
| 20 hour rate 3.43A to 1.75Vpc | 68.6 Ah |
| 10 hour rate 6.68A to 1.75Vpc | 66.8 Ah |
| Internal Resistance | |
| (Fully charged battery @ 25°C /77°F ) | 6mΩ |
| Max. Discharge Current @ 25°C /77°F | 650 A (5S) |
| Charge Methods: Constant voltage charge @ 25°C /77°F | |
| Cycle Use | 14.7 ~ 14.9V |
| Max. Current | 17 A |
| Standby Use | 13.6 - 13.8V |
| Operating Temperature Range | -30 ~ 50°C |

*Notes: battery voltage must be adjusted according to temperature. Please refer to our recommendation.*

Self-Discharge

3% of capacity declined per month @ 25°C (77°F).

## Dimension & Weight

| Dimension (± 2mm) | | | | Weight (± 2%) |
|---|---|---|---|---|
| Length | Width | Height | Total Height | |
| 327 mm | 173 mm | 167 mm | 172 mm | 20.0 kg |
| 12.9 inch | 6.8 inch | 6.6 inch | 6.8 inch | 44.1 lbs |

## Typical Applications

- Telecommunications
- Power Utility
- Data Center
- UPS & EPS

## Certificates

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

| V/cell | 10min | 15min | 20min | 25min | 30min | 35min | 40min | 45min | 50min | 55min | 1hr | 2hr | 3hr | 4hr | 5hr | 10hr | 20hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60 | 160.02 | 122.15 | 106.00 | 89.84 | 75.69 | 69.03 | 64.37 | 59.71 | 55.20 | 51.59 | 48.13 | 26.17 | 19.30 | 15.98 | 13.07 | 6.98 | 3.53 |
| 1.65 | 151.95 | 115.99 | 100.74 | 85.50 | 72.25 | 65.91 | 61.56 | 57.22 | 53.03 | 49.73 | 46.59 | 25.04 | 18.57 | 15.35 | 12.52 | 6.82 | 3.46 |
| 1.70 | 145.67 | 111.20 | 96.77 | 82.33 | 69.90 | 63.73 | 59.55 | 55.38 | 51.36 | 48.23 | 45.26 | 24.16 | 18.15 | 14.99 | 12.23 | 6.75 | 3.46 |
| 1.75 | 138.95 | 106.07 | 92.45 | 78.83 | 67.21 | 61.32 | 57.43 | 53.54 | 49.79 | 46.95 | 44.26 | 23.47 | 17.75 | 14.66 | 11.96 | 6.68 | 3.43 |
| 1.80 | 131.78 | 100.59 | 87.90 | 75.21 | 64.52 | 58.86 | 55.19 | 51.53 | 48.01 | 45.40 | 42.93 | 22.59 | 17.33 | 14.30 | 11.67 | 6.51 | 3.39 |

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

| V/cell | 10min | 15min | 20min | 25min | 30min | 35min | 40min | 45min | 50min | 55min | 1hr | 2hr | 3hr | 4hr | 5hr | 10hr | 20hr |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.60 | 277.90 | 212.14 | 186.69 | 161.24 | 138.60 | 126.79 | 117.78 | 108.76 | 100.35 | 93.04 | 86.13 | 48.74 | 35.84 | 29.61 | 24.39 | 13.66 | 7.21 |
| 1.65 | 268.04 | 204.61 | 180.44 | 156.27 | 134.90 | 123.43 | 114.76 | 106.08 | 98.01 | 91.04 | 84.47 | 47.75 | 35.51 | 29.28 | 24.06 | 13.53 | 7.21 |
| 1.70 | 257.73 | 196.74 | 173.74 | 150.73 | 130.53 | 119.51 | 111.29 | 103.07 | 95.45 | 88.93 | 82.81 | 46.59 | 34.85 | 28.77 | 23.70 | 13.27 | 7.11 |
| 1.75 | 246.52 | 188.19 | 166.47 | 144.75 | 125.83 | 115.26 | 107.49 | 99.72 | 92.55 | 86.48 | 80.81 | 45.10 | 33.86 | 28.07 | 23.27 | 13.17 | 6.98 |
| 1.80 | 234.42 | 178.95 | 158.63 | 138.30 | 120.78 | 110.67 | 103.35 | 96.04 | 89.32 | 83.70 | 78.49 | 43.49 | 32.98 | 27.36 | 22.74 | 13.04 | 6.92 |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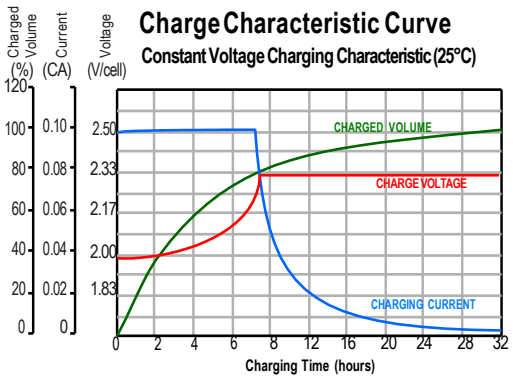
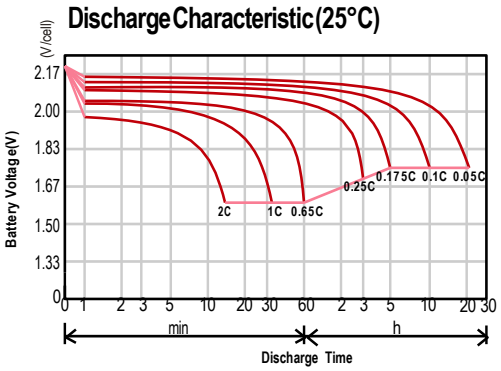
## Graphs

### Charge Characteristic Curve

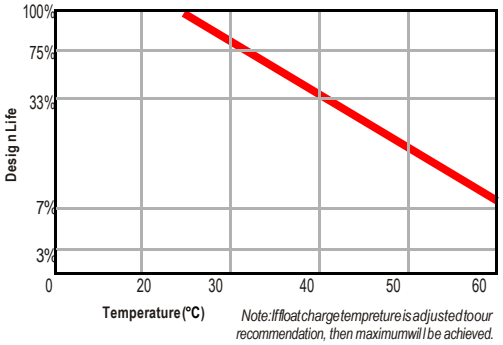
Constant Voltage Charging Characteristic (25°C)



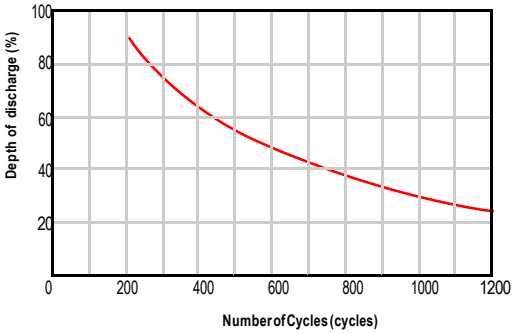

### Discharge Characteristic (25°C)



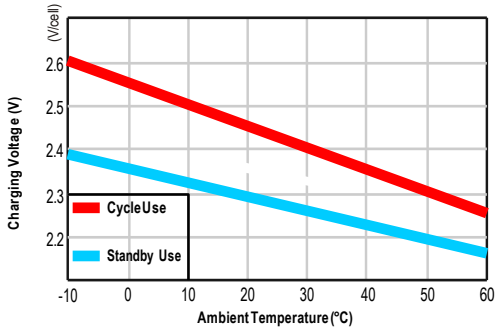

### Temperature Effects On Float Life



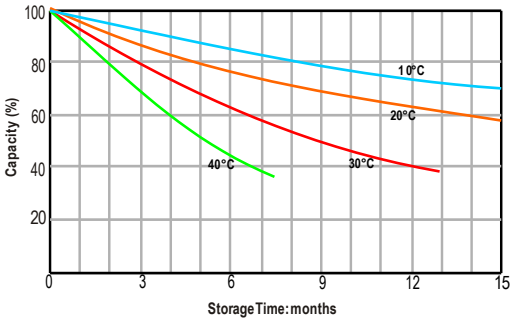

### Cycle Service Life V.S. Depth Of Discharge



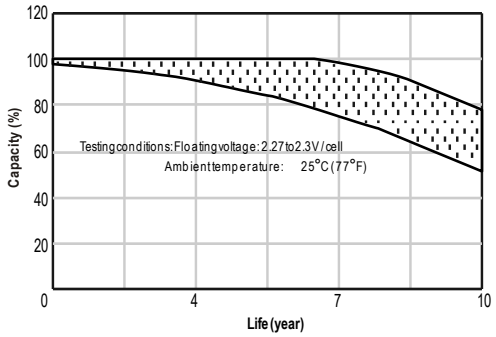

### Charging Voltage V.S. Temperature

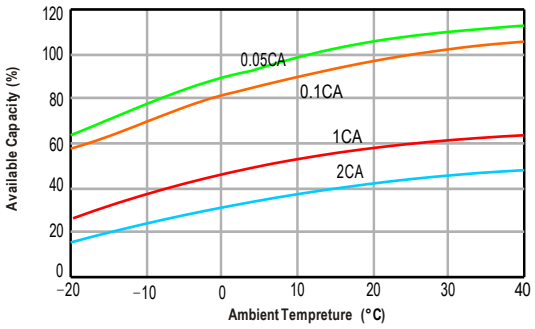



### Self-Discharge Characteristic




### Life Characteristics Of Standby Use




### Temperature Effects On Capacity