

# NM12-45

**12V45Ah / 10hr rate****BATTERY**  
**Genergy**

## Introduction

**Genergy 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.

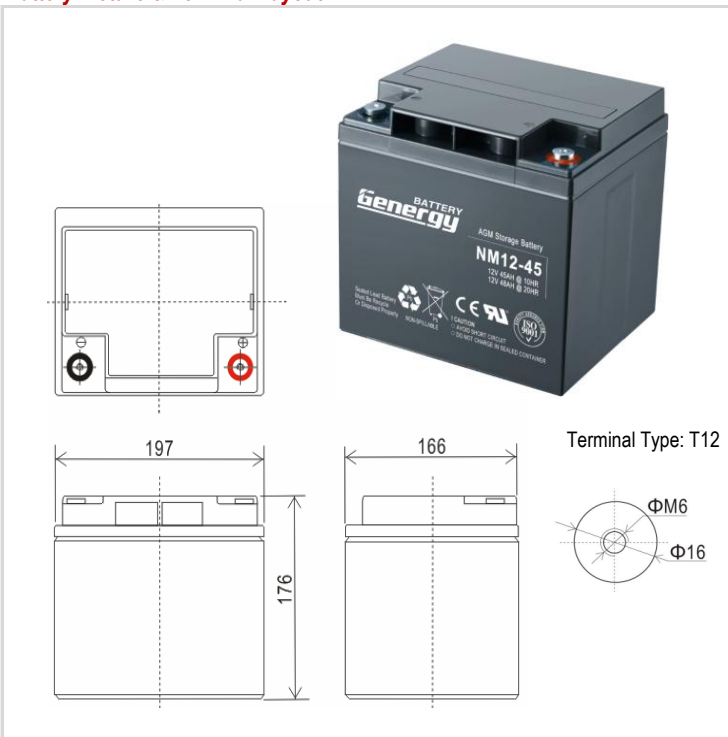
## Battery Features

- 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

## Electrical Specification

|                                                                                                              |              |
|--------------------------------------------------------------------------------------------------------------|--------------|
| Design floating Life @ 25°C (77°F)                                                                           | 10 years     |
| Nominal Capacity @ 25°C /77°F                                                                                |              |
| 20 hour rate 2.33A to 1.75Vpc                                                                                | 46.6 Ah      |
| 10 hour rate 4.54A to 1.75Vpc                                                                                | 45.4 Ah      |
| Internal Resistance                                                                                          |              |
| (Fully charged battery @ 25°C /77°F )                                                                        | 9mΩ          |
| Max. Discharge Current @ 25°C /77°F                                                                          | 420 A (5S)   |
| Charge Methods: Constant voltage charge @ 25°C /77°F                                                         |              |
| Cycle Use                                                                                                    | 14.7 ~ 14.9V |
| Max. Current                                                                                                 | 11 A         |
| Standby Use                                                                                                  | 13.6 - 13.8V |
| Operating Temperature Range                                                                                  | -30 ~ 50°C   |
| <i>Notes: battery voltage must be adjusted according to temperature. Please refer to our recommendation.</i> |              |
| Self-Discharge                                                                                               |              |
| 3% of capacity declined per month @ 25°C (77°F).                                                             |              |

## Battery Picture & Terminal Layout



## Dimension & Weight

| Length   | Dimension (± 2mm) |          |              | Weight (± 2%) |
|----------|-------------------|----------|--------------|---------------|
|          | Width             | Height   | Total Height |               |
| 197 mm   | 166 mm            | 176 mm   | 176 mm       | 14.1 kg       |
| 7.8 inch | 6.5 inch          | 6.9 inch | 6.9 inch     | 31.1 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   | 108.59 | 82.89 | 71.61 | 60.33 | 51.06 | 45.94 | 42.84 | 39.74 | 37.16 | 34.92 | 33.27 | 18.04 | 12.84 | 10.66 | 8.72 | 4.66 | 2.35 |
| 1.65   | 103.11 | 78.71 | 68.37 | 58.02 | 49.69 | 44.73 | 41.78 | 38.83 | 36.40 | 34.32 | 32.82 | 17.69 | 12.59 | 10.44 | 8.51 | 4.63 | 2.35 |
| 1.70   | 98.85  | 75.46 | 65.67 | 55.87 | 48.09 | 43.24 | 40.41 | 37.58 | 35.27 | 33.30 | 31.92 | 17.09 | 12.30 | 10.19 | 8.31 | 4.59 | 2.35 |
| 1.75   | 94.29  | 71.98 | 62.74 | 53.49 | 46.27 | 41.61 | 38.97 | 36.33 | 34.21 | 32.43 | 31.24 | 16.62 | 12.03 | 9.97  | 8.13 | 4.54 | 2.33 |
| 1.80   | 89.43  | 68.26 | 59.65 | 51.04 | 44.45 | 39.94 | 37.45 | 34.97 | 33.00 | 31.38 | 30.34 | 16.02 | 11.74 | 9.72  | 7.93 | 4.43 | 2.31 |

## 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   | 188.58 | 143.96 | 126.69 | 109.42 | 95.38 | 86.04 | 79.92 | 73.81 | 68.62 | 64.23 | 60.66 | 33.35 | 24.27 | 20.14 | 16.58 | 9.29 | 4.90 |
| 1.65   | 181.89 | 138.85 | 122.45 | 106.05 | 92.87 | 83.76 | 77.87 | 71.99 | 67.03 | 62.87 | 59.53 | 32.67 | 24.04 | 19.91 | 16.36 | 9.20 | 4.90 |
| 1.70   | 174.90 | 133.51 | 117.90 | 102.29 | 89.91 | 81.10 | 75.52 | 69.94 | 65.29 | 61.44 | 58.40 | 31.88 | 23.60 | 19.57 | 16.11 | 9.02 | 4.84 |
| 1.75   | 167.29 | 127.70 | 112.96 | 98.22  | 86.71 | 78.21 | 72.94 | 67.67 | 63.32 | 59.78 | 57.05 | 30.87 | 22.93 | 19.08 | 15.82 | 8.96 | 4.75 |
| 1.80   | 159.08 | 121.43 | 107.64 | 93.85  | 83.29 | 75.10 | 70.13 | 65.17 | 61.13 | 57.89 | 55.46 | 29.78 | 22.32 | 18.60 | 15.46 | 8.87 | 4.70 |

Subject to revision without notice. Please contact our sales representatives for latest version.

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## Graphs

