



AGM BATTERY NM Series

NM 12-120X (12V 120AH)



The rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and plates and thus immobilized. Should the battery be accidentally overcharged producing hydrogen and oxygen, special one-way valves allow the gases to escape thus avoiding excessive pressure build-up. Otherwise, the battery is completely sealed and is, therefore, maintenance-free, leak proof and usable in any position.

Battery Construction

| COMPONENT | POSITIVE PLATE | NEGATIVE PLATE | CONTAINER | COVER | SAFETY VALVE | TERMINAL | SEPARATOR | ELECTROLYTE |
|--------------|----------------|----------------|-----------|-------|--------------|-------------|------------|---------------|
| Raw material | Lead dioxide | Lead | ABS | ABS | Rubber | Copper/Plug | Fiberglass | Sulfuric acid |

Performance Characteristics

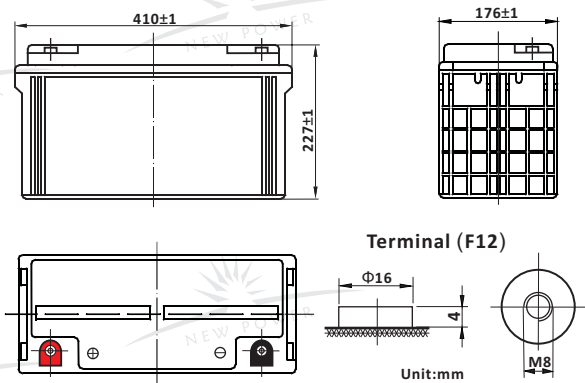
- **Nominal Voltage** 12V
- **Number of Cell** 6
- **Nominal Capacity (77°F /25°C)**
 - 20 Hour rate (6.1A, 10.8V) 122Ah
 - 10 Hour rate (12A, 10.8V) 120Ah
 - 5 Hour rate (20.5A, 10.5V) 102.5Ah
 - 1 Hour rate (72A, 9.6V) 72Ah
- **Internal Resistance**
 - Fully charged battery (77°F /25°C) 4.5mΩ
- **Capacity affected by temperature (10 hour rate)**
 - 104°F (40°C) 102% 32°F (10°C) 85%
 - 77°F (25°C) 100% 5°F (-15°C) 65%
- **Self-Discharge 68°F (20°C)**
 - Capacity after 3 month storage 90%
 - Capacity after 6 month storage 80%
 - Capacity after 12 month storage 60%
- **Max. discharge current 77°F /25°C** 950A(5S)
- **Charge Methods: constant voltage charge 77°F /25°C**
 - Cycle use 14.4 ~ 14.7V
 - Max. Current 30A
 - Standby use 13.6 ~ 13.8V

General Features

- **Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.**
- **Not restricted for air transport-complies with IATA/ICAO Special Provision A67.**
- **A recognized component of CE and UL**
- **Computer designed lead, calcium tin alloy grid for high power density.**
- **Long service life, float or cyclic applications.**
- **Maintenance-free operation.**
- **Low self discharge**
- **Design life 10 years**

Dimensions and Weight

| Type | Length | Width | Height | Total Height | Approx. Weight |
|---------------|----------|----------|----------|--------------|----------------|
| SI Units | 410mm | 176mm | 227mm | 227mm | 33.5Kg |
| English Units | 16.1inch | 6.93inch | 8.94inch | 8.94inch | 62.2lbs |



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

| V/cell | 10min | 15min | 30min | 45min | 1h | 2h | 3h | 10h | 20h |
|--------|-------|-------|-------|-------|------|------|------|------|-----|
| 1.60 | 265.0 | 202.0 | 125.0 | 90.0 | 72.0 | 42.8 | 32.8 | 12.3 | 6.4 |
| 1.65 | 253.0 | 194.0 | 120.0 | 87.5 | 71.0 | 42.0 | 32.2 | 12.3 | 6.4 |
| 1.70 | 239.0 | 184.0 | 114.0 | 84.5 | 69.5 | 41.0 | 31.5 | 12.2 | 6.3 |
| 1.75 | 224.0 | 174.0 | 108.0 | 81.5 | 68.0 | 39.9 | 30.7 | 12.1 | 6.2 |
| 1.80 | 206.0 | 162.0 | 100.0 | 78.0 | 66.0 | 38.6 | 29.7 | 12.0 | 6.1 |

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

| V/cell | 10min | 15min | 30min | 45min | 1h | 2h | 3h | 10h | 12h |
|--------|-------|-------|-------|-------|-------|------|------|------|------|
| 1.60 | 440.0 | 380.0 | 230.0 | 180.0 | 143.0 | 78.0 | 58.1 | 23.8 | 20.5 |
| 1.65 | 428.0 | 365.0 | 223.0 | 176.0 | 141.0 | 76.5 | 57.2 | 23.6 | 20.4 |
| 1.70 | 403.0 | 347.0 | 213.0 | 170.0 | 138.5 | 74.5 | 56.0 | 23.3 | 20.2 |
| 1.75 | 375.0 | 327.0 | 203.0 | 164.0 | 135.5 | 72.5 | 54.7 | 23.0 | 20.0 |
| 1.80 | 345.0 | 305.0 | 190.0 | 156.0 | 131.5 | 70.0 | 53.2 | 22.6 | 19.8 |

(Note: The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.)



