

NH12-420W

12V420W/Cell 15min



Introduction

Generagy NH (high rate) series is primarily for heavy load discharge in short time backup especially in UPS applications. Designed with a high-density plate technology, the series battery is featured of high consistency, excellent performance and reliable standby service life.

Battery Features

- High rate output aimed at the UPS market
- 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 | |
| Watt @ 15min to 1.67V/cell | 420 W/cell |
| Watt @ 10min to 1.67V/cell | 489 W/cell |
| Internal Resistance | |
| (Fully charged battery @ 25°C /77°F) | 3.5mΩ |
| Max. Discharge Current @ 25°C /77°F | 1380A (5S) |
| Charge Methods: Constant voltage charge @ 25°C /77°F | |
| Cycle Use | 14.7 ~ 14.9V |
| Max. Current | 22.0A |
| Standby Use | 13.6 - 13.8V |
| Operating Temperature Range | -30 ~ 50°C |
| <i>Notes: battery voltage must be adjusted according to temperature.</i> | |
| <i>Effect of temperature on float charge voltage: -3mV/ °C/Cell.</i> | |
| Self-Discharge | 3% of capacity declined per month @ 25°C (77°F). |

Typical Applications

- UPS/EPS (High rate)
- Emergency lighting
- High power backup supply
- Electric starting

Maintenance & Caution

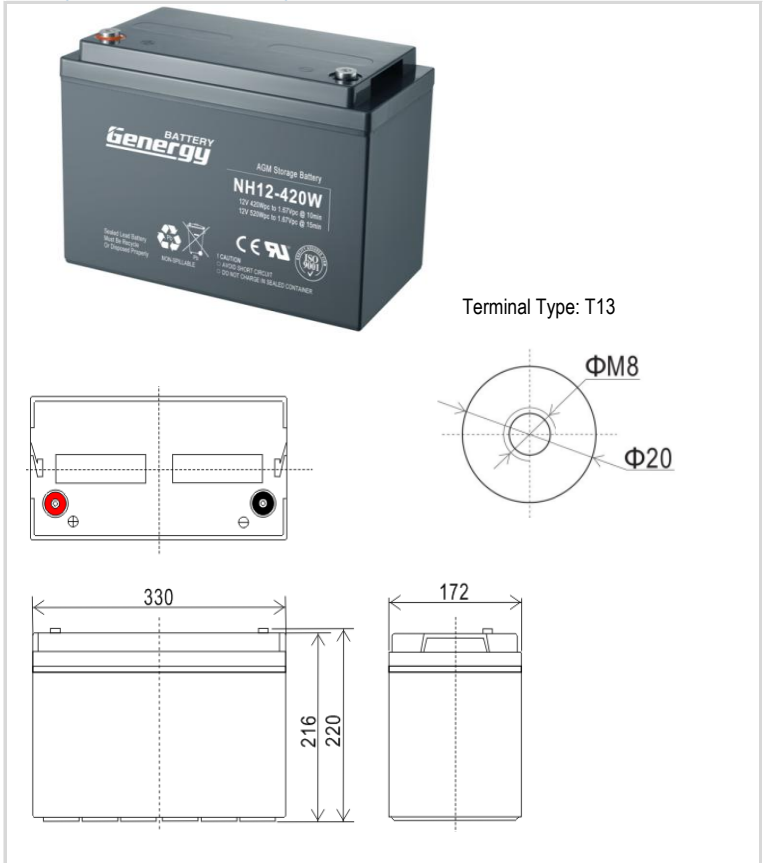
Every three months, recommend equalization charge for one time.
 Equalization charge method: constant voltage charge at 14.4-14.7V for 24h.

| | | | |
|----------|-------------|----------------------|-------------------|
| Terminal | T3, T5, T10 | T4, T6, T7, T11, T12 | T8, T13, T14, T16 |
| Bolt | M5 | M6 | M8 |
| Torque | 5-6N*m | 9-11N*m | 11-13N*m |

Certificates



Battery Picture & Terminal Layout



Dimension & Weight

| Length | Dimension (± 2mm) | | | Total Height | Weight (± 2%) |
|-----------|-------------------|----------|----------|--------------|---------------|
| | Width | Height | | | |
| 330 mm | 172 mm | 216 mm | 220 mm | 32.3 kg | |
| 13.0 inch | 6.8 inch | 8.5 inch | 8.7 inch | 71.2 lbs | |

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

| V/cell | 5min | 10min | 15min | 20min | 30min | 45min | 55min | 1hr | 2hr |
|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| 1.60 | 346.73 | 248.75 | 211.14 | 177.45 | 130.24 | 93.57 | 86.77 | 76.05 | 43.28 |
| 1.65 | 332.74 | 239.63 | 209.92 | 173.83 | 128.87 | 93.42 | 84.78 | 75.19 | 43.21 |
| 1.70 | 325.28 | 235.30 | 206.47 | 173.57 | 128.03 | 93.20 | 84.50 | 74.88 | 42.88 |
| 1.75 | 295.45 | 224.98 | 199.90 | 169.45 | 126.93 | 93.01 | 84.13 | 74.74 | 42.48 |
| 1.80 | 265.34 | 207.24 | 189.67 | 161.83 | 123.25 | 90.80 | 81.45 | 73.71 | 42.08 |

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

| V/cell | 5min | 10min | 15min | 20min | 30min | 45min | 55min | 1hr | 2hr |
|-------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|--------------|
| 1.60 | 697.2 | 504.4 | 426.5 | 361.09 | 265.84 | 190.11 | 177.37 | 154.29 | 87.93 |
| 1.65 | 679.7 | 500.0 | 423.1 | 358.88 | 264.81 | 188.58 | 170.81 | 153.77 | 85.98 |
| 1.67 | 665.8 | 489.6 | 420.8 | 352.58 | 260.66 | 188.20 | 167.67 | 152.86 | 84.36 |
| 1.70 | 635.9 | 477.3 | 415.4 | 349.64 | 257.40 | 184.98 | 163.68 | 150.75 | 81.68 |
| 1.75 | 615.7 | 461.1 | 412.0 | 342.18 | 255.35 | 183.29 | 157.96 | 147.96 | 78.82 |
| 1.80 | 545.0 | 442.2 | 389.0 | 333.13 | 254.46 | 180.77 | 155.68 | 144.40 | 77.09 |

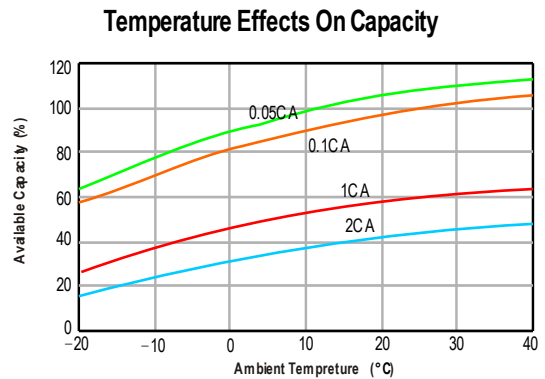
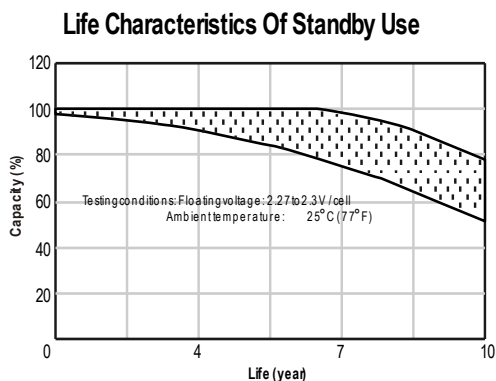
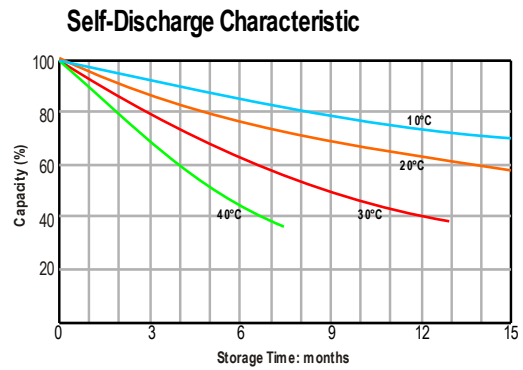
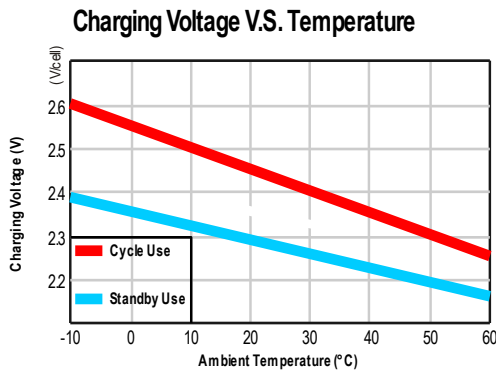
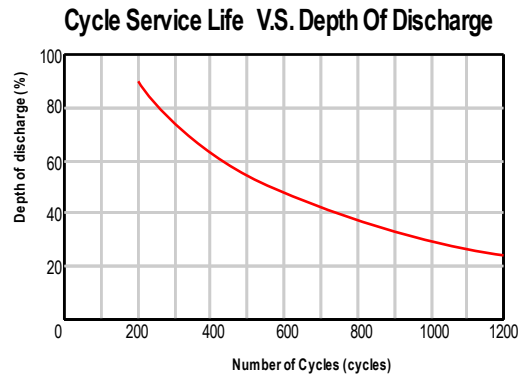
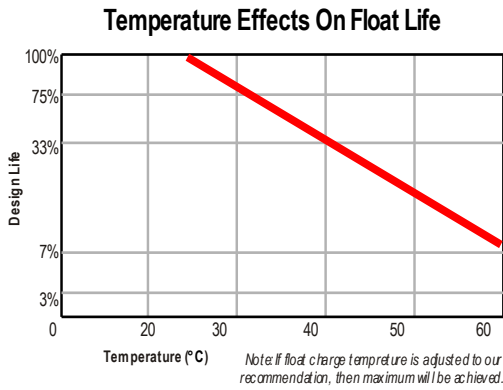
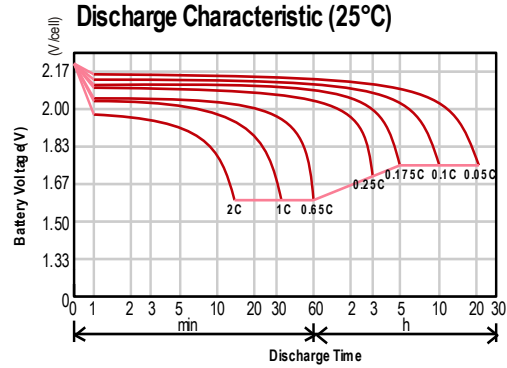
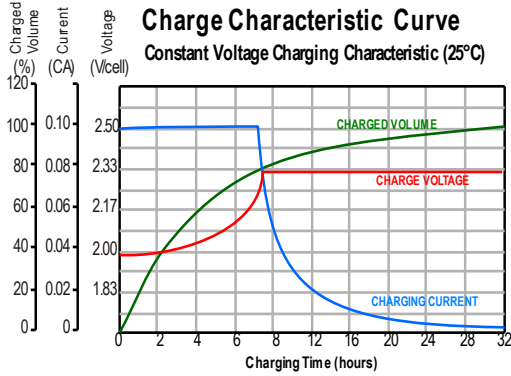
Above discharge data is average values after batteries are fully charged.

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Graphs



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