



Product Specification NP7-12FR

Product NO.
175016

Yuasa NP Series VRLA Battery, 5 Years Design Life

The Yuasa NP series is a high energy density Valve Regulated Lead Acid (VRLA) battery that uses advanced plate technology and sealed construction. Its unique sealing technique prevents electrolyte leakage when the battery is mounted either horizontally or vertically. Manufactured in Yuasa quality assured factories, the Yuasa NP series offers absolute reliability and minimal maintenance for end users.

- Sealed construction with pressure relief system
- Operation in any orientation (*except in an inverted position*)
- Heavy duty grids
- Low self discharge
- Wide operating temperature range (-15°C to $+50^{\circ}\text{C}$)
- Recyclable materials used in battery

General Performance

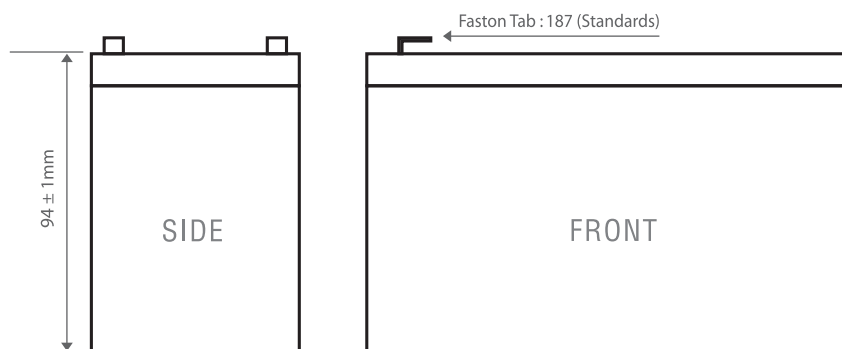
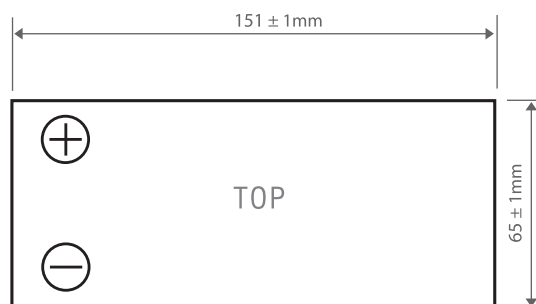
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|-------------------------|-------------------------|--------|
| Battery | NP7-12FR | |
| Application | Floating | |
| Design Life | 5 Years | |
| Nominal Capacity | 7Ah | |
| Actual Capacity at 25°C | 1 hour rate to 1.60Vpc | 4.38Ah |
| | 5 hour rate to 1.70Vpc | 6.03Ah |
| | 10 hour rate to 1.75Vpc | 6.36Ah |
| | 20 hour rate to 1.75Vpc | 7Ah |

Electrolyte

| | |
|------------------------------|---------------------|
| Fully charge density at 25°C | 1.300 |
| Density Range | 1.290-1.310 |
| Gelled/Absorbed | Absorbed |
| Mounting Orientation | Vertical/Horizontal |

Plates

| Positive Plates: | |
|------------------|------------------------|
| Number/cell | 3 |
| Type | Flat |
| Material of grid | Lead-Calcium-Tin Alloy |
| Thickness | 3.5mm |
| Negative Plates: | |
| Number/cell | 4 |
| Type | Flat |
| Material of grid | Lead-Calcium-Tin Alloy |
| Thickness | 2mm |





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Physical Properties

| Separators | |
|----------------------------------|---|
| Type | Glass Mat |
| Is glass fibre included? | Yes |
| Container & Cover Materials | |
| Lid Material, Colour | Acrylonitrile Butadiene Styrene ABS / Black |
| Container Material, Colour | Acrylonitrile Butadiene Styrene ABS / Grey |
| Flame Retardant | Yes |
| Safety Vent Operational Pressure | 20kPa |
| Dimensions: | |
| Overall Width | 151mm |
| Depth | 65mm |
| Height | 94mm |
| Overall Height | 97.5mm |
| Battery Weight (kg) | |
| Total Weight (wet) | 2.65kg |

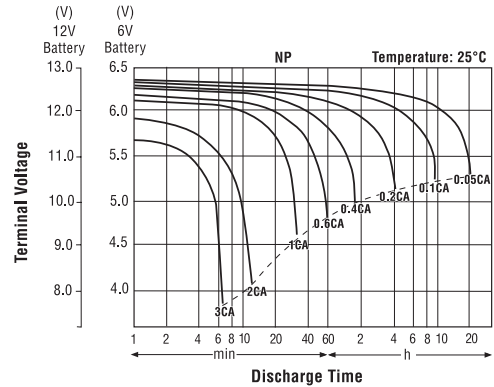
Electrical Properties

| | | | |
|-----------------------------------|-----------------|----------|----------|
| Self Discharge Rate @ 20°C | <3% per month | | |
| Normal Charge (Amperes) | 0.70A | | |
| Max. Charge (Amperes) | 1.75A | | |
| Internal Resistance (mOHMS) | 25 mΩ | | |
| Volts End of Charge | 2.260Vpc @ 25°C | | |
| | 20°C | 25°C | 30°C |
| Float Voltage (Vpc) | 2.275Vpc | 2.260Vpc | 2.245Vpc |
| Float Current (mA) | <7mA | <7mA | <7mA |
| Initial Short circuit current (A) | 500 | | |
| Efficiency at 10 hour rate (%): | | | |
| Ampere-Hour | >90% | | |
| Watt-Hour | >80% | | |

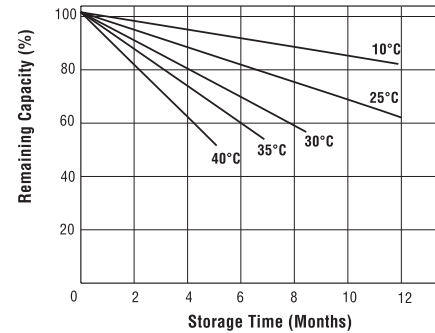
Compliant Standard

| | |
|------------------|-----------|
| Battery Standard | JIS C8702 |
|------------------|-----------|

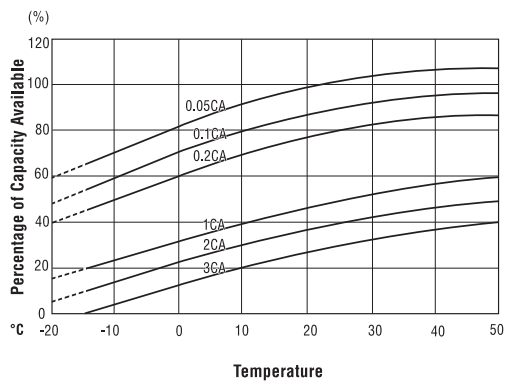
Discharge Characteristic Curves: NP Batteries



Self Discharge Characteristics



Temperature Effects in Relation to Battery Capacity



CenturyYuasa

An affiliated business of the GS Yuasa Corporation, Century Yuasa has an 80-year history of supplying a range of stored energy solutions to the Australian market. An established network of sales and distributions offices throughout Australia and New Zealand has seen the business gain the trust and respect from its customers by focusing on quality products and exceptional customer service. CenturyYuasa is Australia's enduring manufacturer of stored energy products.

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