



# NP38-12R NP38-12RFR

Sealed Rechargeable  
Lead-Acid Battery  
12V, 40Ah



## Specifications

Nominal Voltage: 12V

Nominal Capacity at 25°C:

20 hr. rate of 1.90A to 10.5V 38.0Ah  
10 hr. rate of 3.5A to 10.5V 35.0Ah  
5 hr. rate of 6.60A to 10.2V 33.0Ah  
1 hr. rate of 27.0A to 9.60V 27.0Ah

Weight (approx.):  
13.53 kgs

Energy Density (20 hr. rate):  
83 WH/litre

Specific Energy (20 hr. rate):  
34 WH/kg

Internal resistance  
of charged battery:  
8 milliohms (approx.)

Maximum discharge current  
with standard terminals:  
150 amperes

Maximum short-duration  
discharge current: 500 amperes

Operating Temperature Range:  
Charge -15°C to 50°C  
Discharge -20°C to 60°C

Charge Retention (shelf life)  
at 20°C: 12V  
1 month 97%  
3 month 91%  
6 Months 85%

**Sealed construction**  
Can be operated in any  
position without leakage

**Standard Terminal:**  
M6 Threaded Receptacle

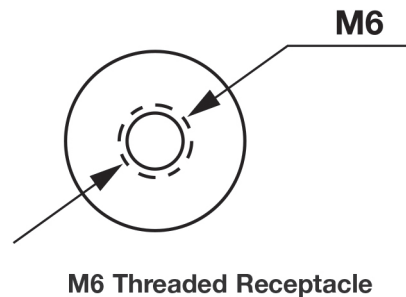
**Housing material:**  
ABS Resin

**Optional:**  
Container and cover made  
from Flame Retardant ABS  
(UL94-V0/L.O.I.>28%) - FR type only

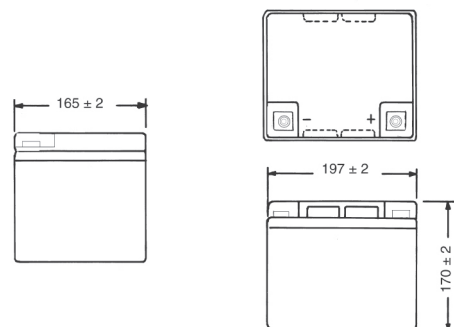
**Standards:**  
The management systems  
governing the manufacture  
of this product are ISO 9001:2008  
and ISO 14001:2004 certified

VdS Approved Valve-Regulated  
Lead-Acid battery

## Terminal



## Dimensions

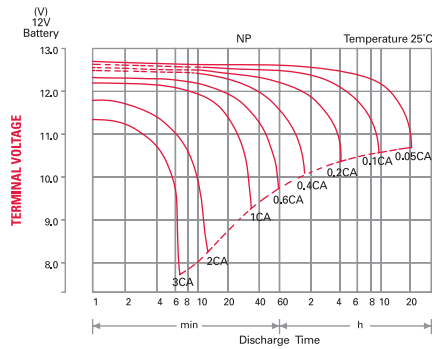


Dimensions: mm



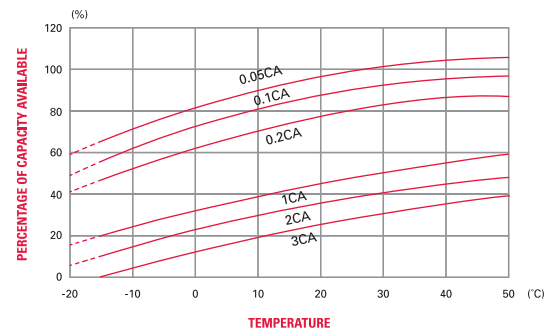
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## Discharge characteristic curves at 25°C



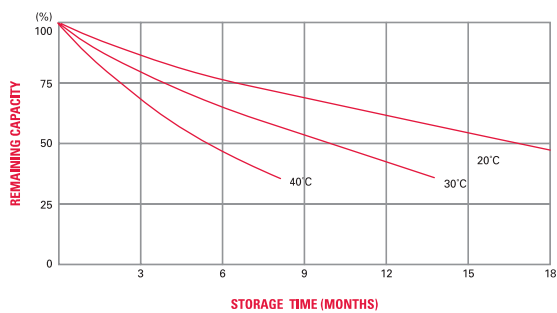
Ref.: Genesis® NP/DataSafe® NPX RS 003 - Mar 2014; Page 4

## Temperature effects in relation to battery capacity



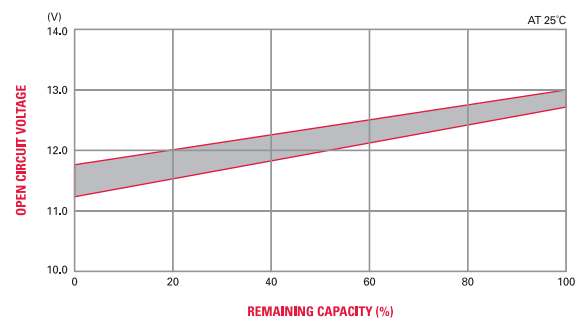
Ref.: Genesis NP/DataSafe NPX AM 003 - Jan 2011; Page 7, Fig. 4

## Self discharge characteristics



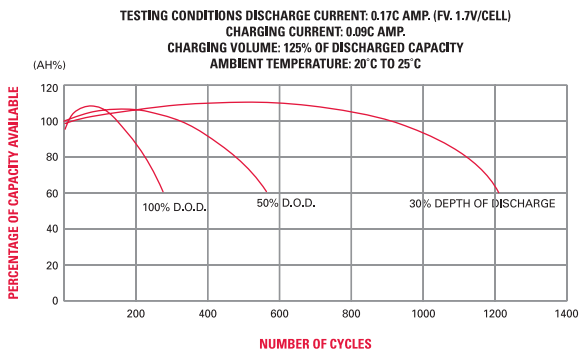
Ref.: Genesis NP/DataSafe NPX AM 003 - Jan 2011; Page 9, Fig. 5

## Open circuit voltage vs remaining capacity



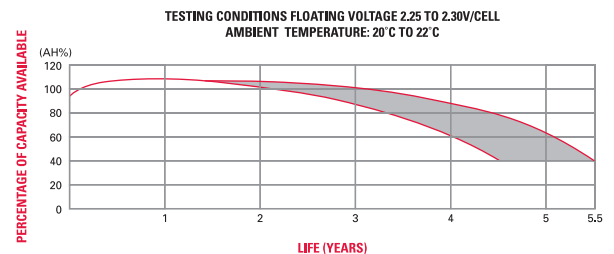
Ref.: Genesis NP/DataSafe NPX AM 003 - Jan 2011; Page 9, Fig. 6

## Cycle service life in relation to depth of discharge



Ref.: Genesis NP/DataSafe NPX RS 003 - Mar 2014; Page 4

## Float service life



Ref.: Genesis NP/DataSafe NPX RS 003 - Mar 2014; Page 4

Do not operate at 3C or more current continuously.

### CHARGING METHODS (at 20°C)

**Cycle use:** Maximum charging current 9.5A

**Charging voltage:** 14.4 to 15.0V

**Standby use:** Float charging voltage 13.50 to 13.80V

## CAUTION

- Avoid short circuit
- Do not charge in sealed container



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