

REC10-12

Reliability is your Security

Yuasa REC10-12 utilises the latest advanced design Oxygen Recombination Technology. Yuasa have applied their 80 years experience in the lead acid battery field to produce the optimum design of Sealed Lead Acid batteries.

FEATURES

- Can be used to help achieve BSEN50131 where longer autonomy is required.
- Same foot print as NP7-12 but increased capacity.
- Superb recovery from deep discharge.
- Electrolyte suspension system.
- Gas Recombination.
- Multipurpose: Float or Cyclic use.
- Usable in any orientation (except continuous inverted).
- Superior energy density.
- Lead calcium grids for extended life.
- Manufactured World wide.
- Application specific designs.

Technical Features

Sealed Construction

Yuasa's unique construction and sealing technique ensures no electrolyte leakage from case or terminals

Electrolyte Suspension System

REC batteries utilize Yuasa's unique electrolyte suspension system incorporating a microfine glass mat to retain the maximum amount of electrolyte in the cells. The electrolyte is retained in the separator material and there is no free electrolyte to escape from the cells. No gels or other contaminants are added.

Control of Gas Generation

The design of Yuasa's REC batteries incorporates the very latest oxygen recombination technology to effectively control the generation of gas during normal use.

Low Maintenance Operation

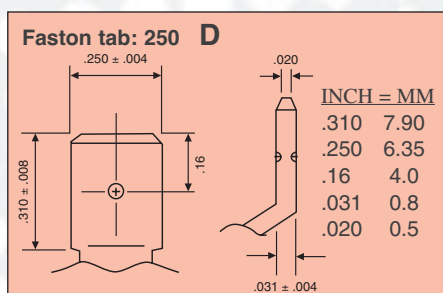
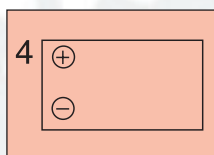
Due to the perfectly sealed construction and the recombination of gasses within the cell, the battery is almost maintenance free.

Operation in any Orientation

The combination of sealed construction and Yuasa's unique electrolyte suspension system allows operation in any orientation, with no loss of performance or fear of electrolyte leakage. (Excluding continuous use inverted)

Terminals

Layout



Valve Regulated Design

The batteries are equipped with a simple, safe low pressure venting system which releases excess gas and automatically reseals should there be a build up of gas within the battery due to severe overcharge. Note. On no account should the battery be charged in a sealed container.

Lead Calcium Grids

The heavy duty lead calcium alloy grids provide an extra margin of performance and life in both cyclic and float applications and give unparalleled recovery from deep discharge.

Long Cycle Service Life

Depending upon the average depth of discharge, over a thousand discharge/charge cycles can be expected.

Float Service Life

The expected service life is seven years in float standby applications at 20°C.

Separators

The use of the special separator material provides a very efficient insulation between plates preventing inter-plate short circuits and prohibiting the shedding of active materials.

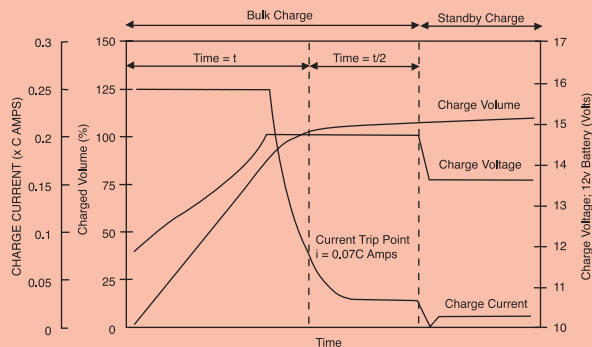
Long Shelf Life

The extremely low self discharge rate allows the battery to be stored for extended periods up to one year at normal ambient temperatures with no permanent loss of capacity.

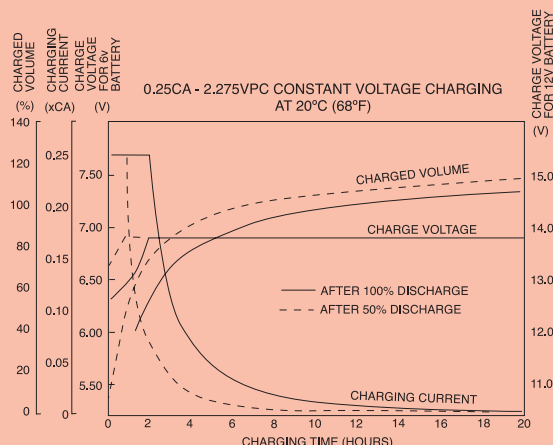
General Specifications

Nominal Capacity (Ah)	REC10-12
20hr to 1.75vpc 30°C	10.0
10hr to 1.75vpc 20°C	9.3
5hr to 1.70vpc 20°C	8.5
1hr to 1.60vpc 20°C	6.0
Voltage	12
Int. Resistance (m.Ohms)	<20
Maximum discharge (A)	40
Short Circuit current (A)	360
Dimensions (mm)	
Length	151
Width	65
Height overall	115.5
Weight (Kg)	3.4
Terminal	A
Layout	4
Terminal Torque Nm	-

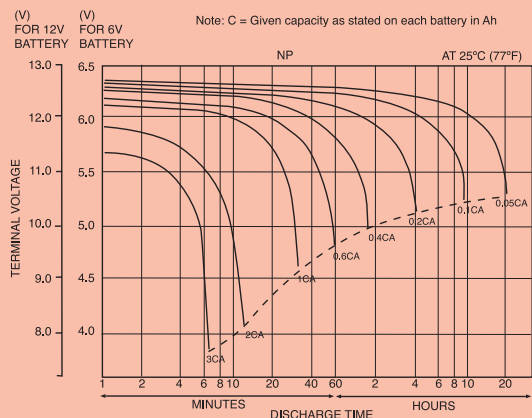
CYCLIC RECHARGE REGIME



FLOAT CHARGE CHARACTERISTICS



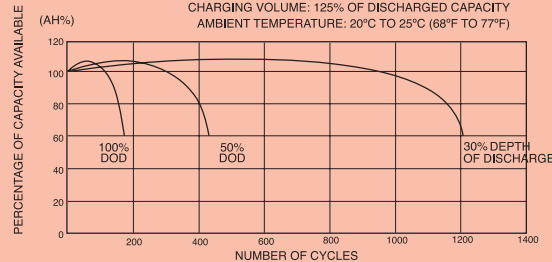
DISCHARGE CHARACTERISTICS CURVES AT 25°C (77°F)



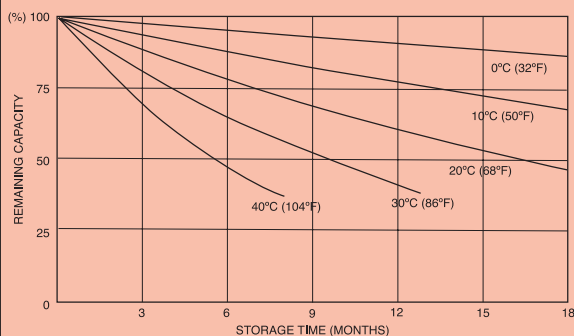
TYPICAL DISCHARGE CHARACTERISTICS NP RANGE

CYCLE SERVICE LIFE IN RELATION TO DEPTH OF DISCHARGE

TESTING CONDITIONS: DISCHARGE CURRENT: 0.17C Amp. (F.V 1.7V/CELL)
CHARGING CURRENT: 0.09C Amp.
CHARGING VOLUME: 125% OF DISCHARGED CAPACITY
AMBIENT TEMPERATURE: 20°C TO 25°C (68°F TO 77°F)



SELF DISCHARGE CHARACTERISTICS



Operating Temperature Range

The batteries can be used over a broad temperature range permitting considerable flexibility in system design and location.

Charge – 15°C to 50°C
Discharge – 20°C to 60°C
Storage – 20°C to 50°C (fully charged battery)

Charging For Float Standby Applications

Charged at 2.275 volts per cell continuous. The battery will seek its own current level and float fully charged. However, users should be aware that when charging from fully discharged, the battery can draw an initial charge current of approximately 2cA. Care should therefore be taken to ensure that this initial charge current (if ungoverned) is within the output capability of the equipment. Final charge current at 2.275 volts per cell is typically between 0.0005cA to 0.004cA.

Charging For Cyclic Applications

See cyclic recharge regime graph.

CAUTION

- Do not Short Circuit
- Do not charge in a sealed container
- Service life and operational characteristics will be affected by temperature
- AC Ripple reduces service life.



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