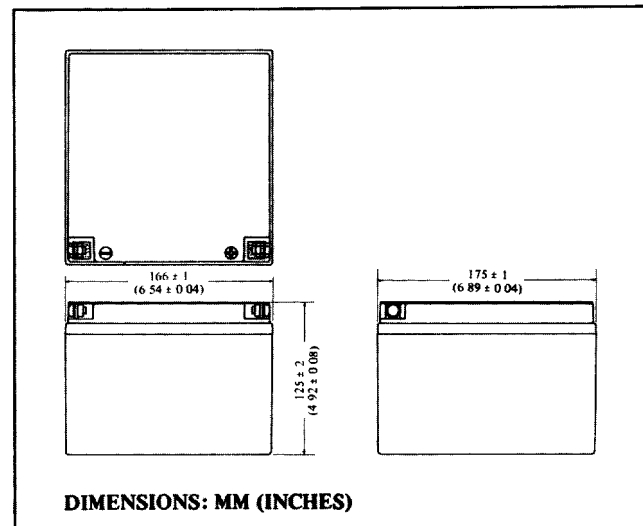


YUASA maintenance-free rechargeable battery

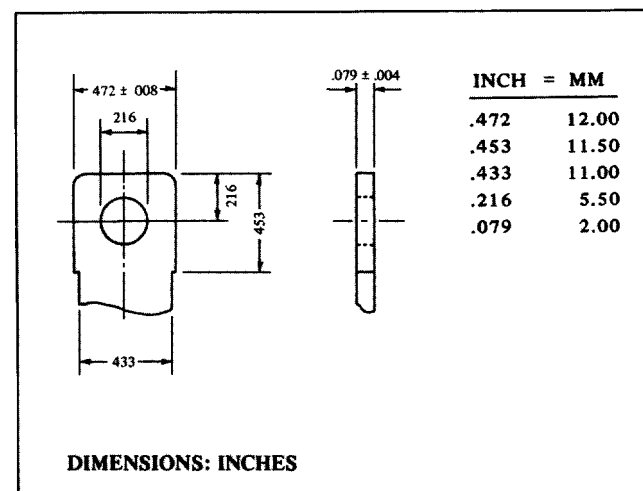
NP24-12B 12V, 24.0Ah



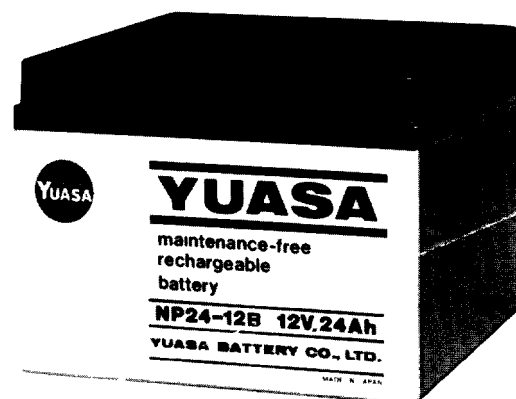
● DIMENSIONS



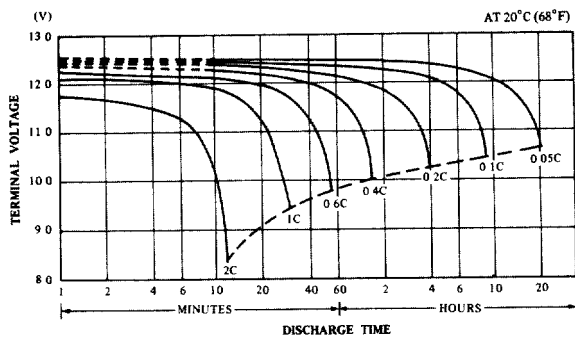
● TERMINAL



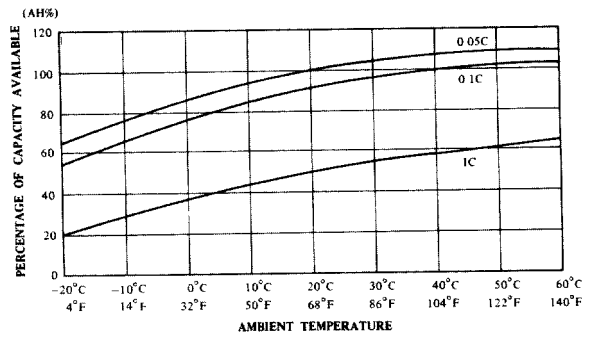
1. Nominal voltage **12 V**
2. Nominal capacity
 - 20 hr. rate of 1.20 A to 10.50 V 24.0 A.H.
 - 10 hr. rate of 2.23 A to 10.50 V 22.3 A.H.
 - 5 hr. rate of 4.08 A to 10.20 V 20.4 A.H.
 - 1 hr. rate of 14.40 A to 9.60 V 14.4 A.H.
3. Weight (approx.) **17 pounds (7700 gs.)**
4. Energy density (20 hr. rate) **1.30 WH/cubic inch (79 WH/litre)**
5. Specific energy (20 hr. rate) **16.9 WH/pound (37 WH/kg)**
6. Internal resistance of charged battery **35 milliohms (approx.)**
7. Maximum discharge current with standard terminals **150 amperes**
8. Maximum short-duration discharge current **500 amperes**
9. Operating temperature range
 - Charge **5° F to 122° F (-15° C to 50° C)**
 - Discharge **-4° F to 140° F (-20° C to 60° C)**
10. Charge retention (shelf life) at 68° F (20° C)
 - 1 month **97%**
 - 3 months **91%**
 - 6 months **85%**
11. Life expectancy
 - Standby use **3 to 5 years**
 - Cycle use
 - 100% depth of discharge **180 cycles (approx.)**
 - 50% depth of discharge **400 cycles (approx.)**
 - 30% depth of discharge **1200 cycles (approx.)**
12. Sealed construction **Can be operated, charged or stored in any position without leakage.**
13. Standard terminal **Bolt fastened terminal**
14. Housing material **ABS resin**



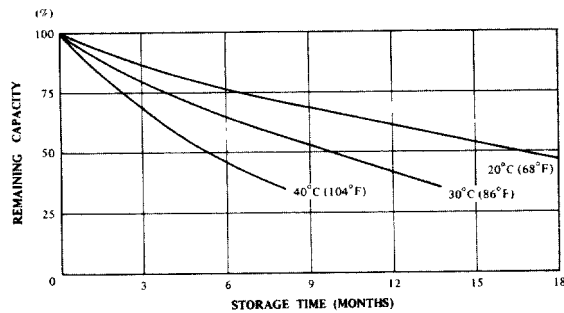
DISCHARGE CHARACTERISTIC CURVES



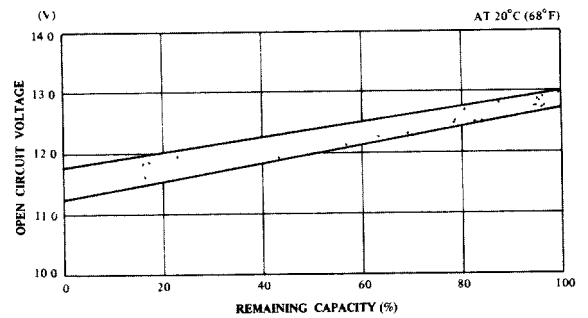
TEMPERATURE EFFECTS IN RELATION TO BATTERY CAPACITY



SELF DISCHARGE CHARACTERISTICS

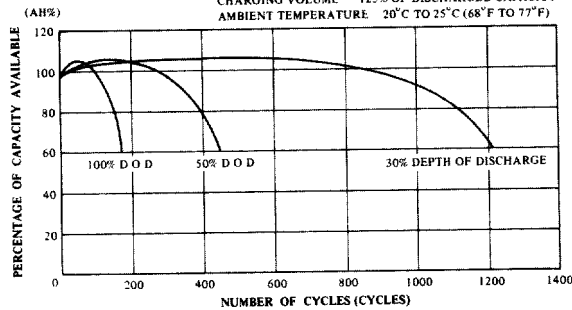


OPEN CIRCUIT VOLTAGE VS REMAINING CAPACITY



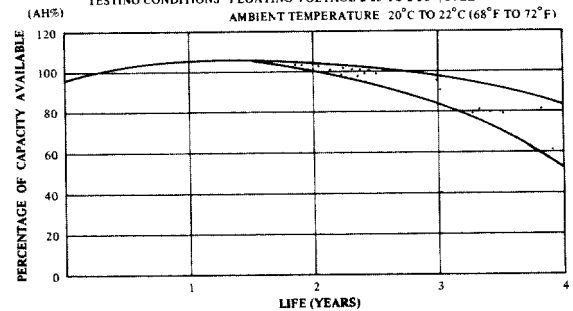
CYCLE SERVICE LIFE IN RELATION TO DEPTH OF DISCHARGE

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)

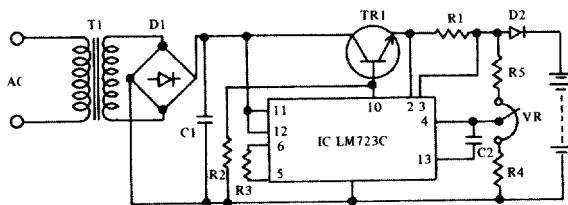


FLOAT SERVICE LIFE

TESTING CONDITIONS FLOATING VOLTAGE 2.25 TO 2.30V/CELL
AMBIENT TEMPERATURE 20°C TO 22°C (68°F TO 72°F)



CHARGING CIRCUIT



CHARGING METHODS

Cycle use : Maximum charging current 0.25C
Charging voltage 14.4 to 15V

Standby use : Maximum charging current 0.25C
Float charging voltage 13.5 to 13.8V

YUASA BATTERY CO., LTD.

No. 12-11, 2-Chome, Higashi-Shinbashi
Minato-ku, Tokyo 105, Japan
Phone: Tokyo (03) 437-2411
Cable: YUASABATRY TOKYO
Telex: 29228 YBCTOK

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