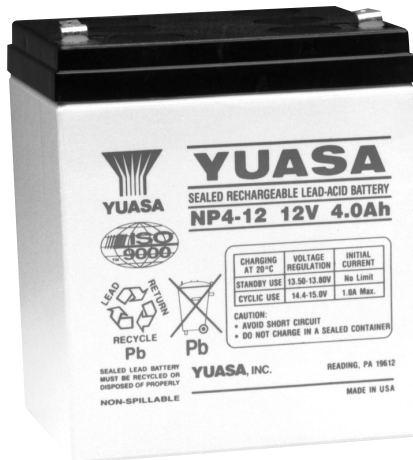


**Independence™****SEALED RECHARGEABLE LEAD-ACID****B A T T E R I E S**

**YUASA**  
**NP4-12**  
**NP4-12FR**

**12V, 4.0Ah****Specifications****NOMINAL VOLTAGE:** 12V**NOMINAL CAPACITY:**

20 hr. rate of 0.20A to 10.5V 4.0Ah  
10 hr. rate of 0.37A to 10.5V 3.7Ah  
5 hr. rate of 0.68A to 10.2V 3.4Ah  
1 hr. rate of 2.40A to 9.60V 2.4Ah

**WEIGHT (approx.)** 3.74 pounds (1.7 kgs.)**ENERGY DENSITY (20 hr. rate):**

1.23 WH/cubic inch (75.1 WH/liter)

**SPECIFIC ENERGY (20 hr. rate):**

12.7 WH/pound (28.0 WH/kg)

**INTERNAL RESISTANCE OF CHARGED BATTERY:**

40 milliohms (approx.)

**MAXIMUM DISCHARGE CURRENT WITH STANDARD TERMINALS:**

40 amperes

**MAXIMUM SHORT-DURATION DISCHARGE CURRENT:**

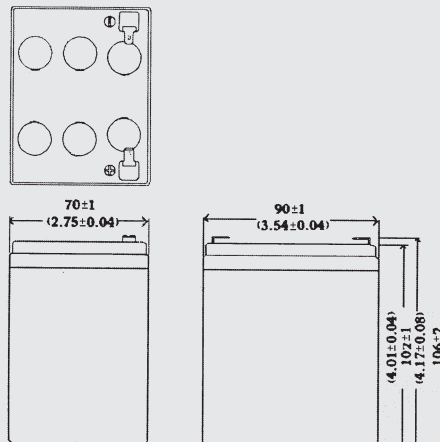
120 amperes

**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)**CHARGE RETENTION (shelf life) at 68°F (20°C):****1 month** 97%**3 months** 91%**6 months** 85%**LIFE EXPECTANCY:****STANDBY USE** 3 to 5 years**CYCLE USE (approx.)****100% depth of discharge** 250 cycles**50% depth of discharge** 550 cycles**30% depth of discharge** 1200 cycles**SEALED CONSTRUCTION:**

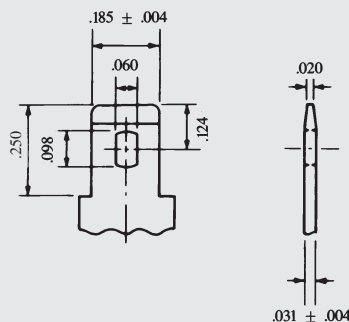
Can be operated in any position without leakage.

**STANDARD TERMINAL:**

Quick Disconnect .187 or Optional .250

**HOUSING MATERIAL:** ABS Resin**OPTIONAL:** Container and cover made from Flame Retardant ABS (UL94-VO/L.O.I.>28%)**Dimensions**

DIMENSIONS: MM (INCHES)

**Terminal**

DIMENSIONS: INCHES

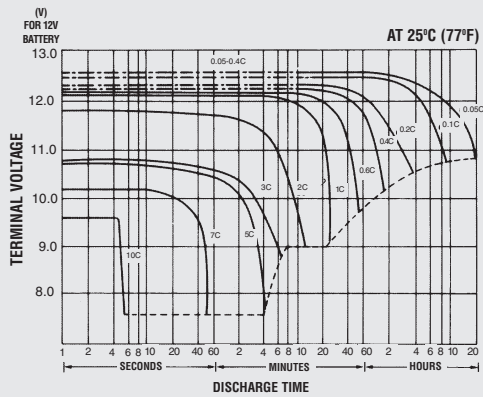
INCH = MM

.250	6.35
.185	4.70
.124	3.15
.098	2.49
.060	1.52
.031	0.79
.020	0.51
.004	0.10

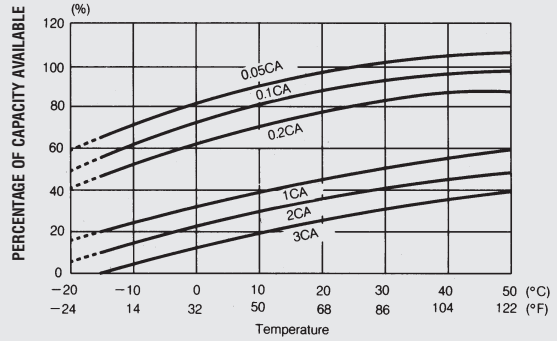


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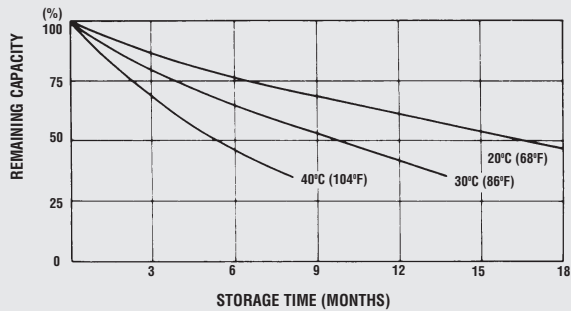
## DISCHARGE CHARACTERISTIC CURVES



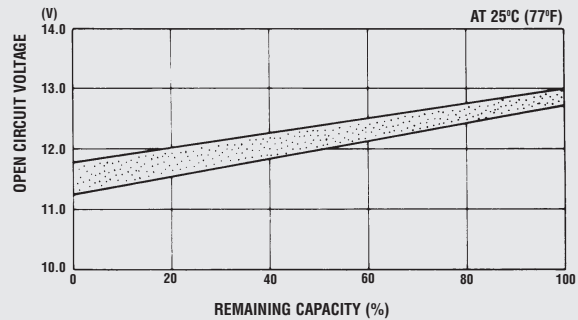
## TEMPERATURE EFFECTS IN RELATION TO BATTERY CAPACITY



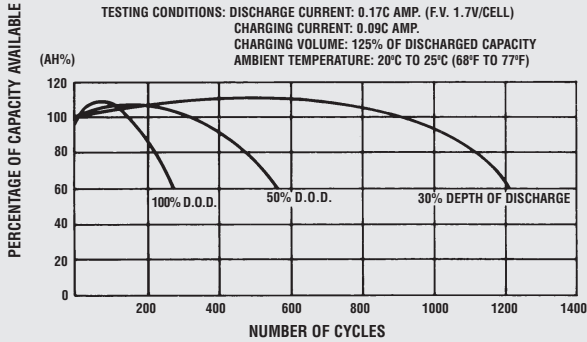
## SELF DISCHARGE CHARACTERISTICS



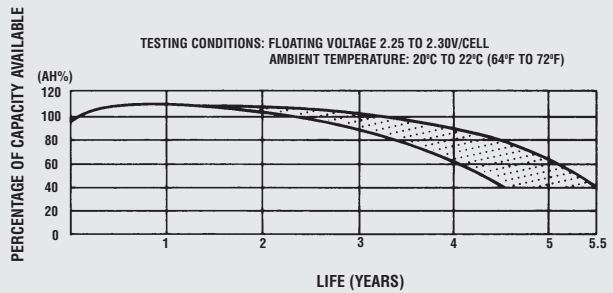
## OPEN CIRCUIT VOLTAGE VS REMAINING CAPACITY



## CYCLE SERVICE LIFE IN RELATION TO DEPTH OF DISCHARGE



## FLOAT SERVICE LIFE



When the battery will be used by the current in excess of 3C, consult with EnerSys Inc. prior to use.

**CHARGING METHODS (At 20°C) Cycle use:** Maximum charging current 1.0A  
 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 a sealed container.

Represented by:

When ordering new batteries, also remember to properly recycle your old lead batteries. Federal and state regulations require lead-acid batteries be recycled. EnerSys' nationwide service organization can arrange pickup, transportation to and recycling at any one of our company affiliated smelters. Call 1-800-972-7372 for more information.



### Sales Offices

Eastern Region: 201-964-0118 • 1-800-962-1287  
 FAX 201-964-0720

Western Region: 562-949-4266 • 1-800-423-4667  
 FAX 562-949-5527

Corporate Office: P.O. Box 14145, Reading, PA 19612-4145  
 FAX 610-372-8613

Visit us on the web at: [www.enersysstationary.com](http://www.enersysstationary.com)

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