

# Independence™

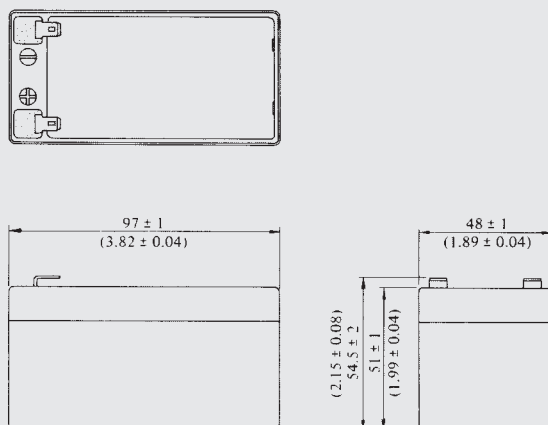
## Sealed Rechargeable Lead-Acid Battery



**NP1.2-12**  
**NP1.2-12FR**  
**12V, 1.2Ah**

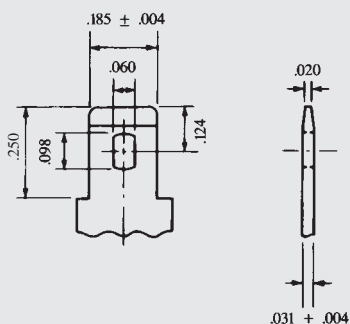


### Dimensions



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

### Specifications

Nominal Voltage . . . . . 12V

Nominal Capacity

20 hr. rate of 60 ma to 10.50 V . . . . 1.2Ah

10 hr. rate of 110 ma to 10.50 V . . . . 1.1Ah

5 hr. rate of 200 ma to 10.20 V . . . . 1.0Ah

1 hr. rate of 700 ma to 9.60 V . . . . 0.7Ah

Weight (approx.) . . . . . 1.25 lbs  
(0.57 kgs)Energy density (20hr. rate) . . . . 1.00 WH/cu. in.  
(62 WH/litre)Specific energy (20 hr. rate) . . . . 11.4 WH/pound  
(25 WH/kg)

Internal resistance of charged battery

. . . . . 120 milliohms (approx.)

Maximum discharge current with standard terminals . . . . . 40 amperes

Maximum short-duration discharge current . . . . . 45 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

100% depth of discharge . . . . 180 cycles (approx)

50% depth of discharge . . . . 400 cycles (approx)

30% depth of discharge . . . . 1200 cycles (approx)

Sealed construction

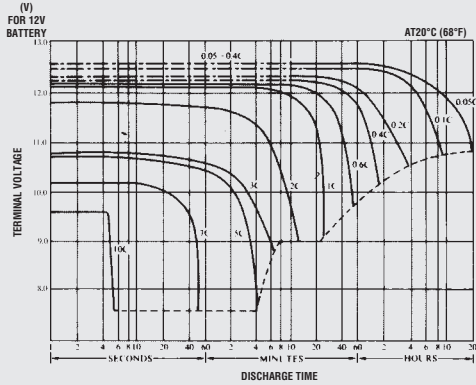
Can be operated, charged or stored in any position without leakage.

Standard terminal . . . . Quick Disconnect .187

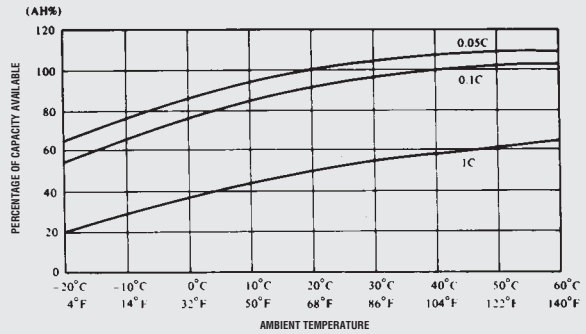
Housing material . . . . . ABS Resin

Optional . . . . . ABS Flame Retardant (UL94-VO)

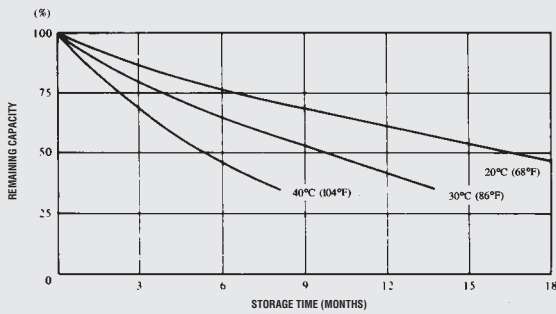
### DISCHARGE CHARACTERISTIC CURVES



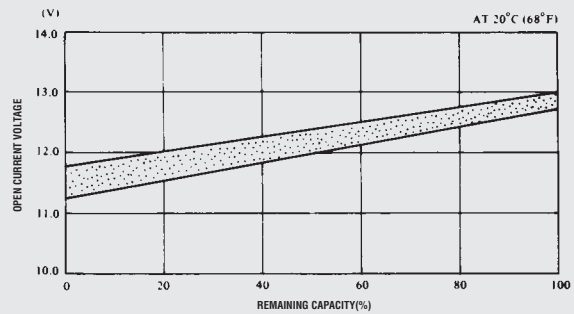
### TEMPERATURE EFFECTS IN RELATION TO BATTERY CAPACITY



### SELF DISCHARGE CHARACTERISTICS

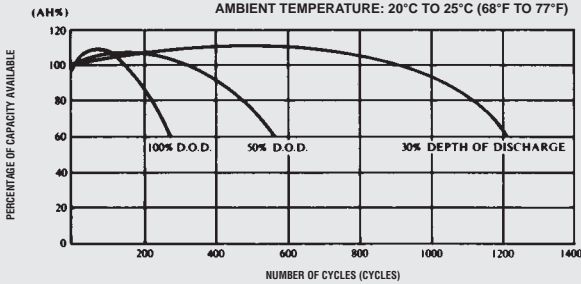


### OPEN CIRCUIT VOLTAGE VS REMAINING CAPACITY



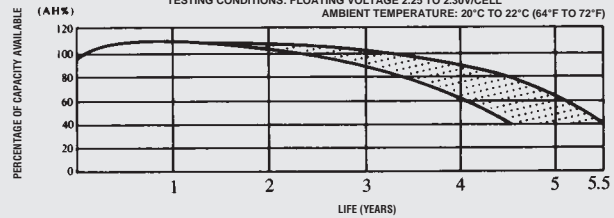
### CYCLE SERVICE LIFE IN RELATION TO DEPTH OF DISCHARGE

TESTING CONDITIONS: DISCHARGE CURRENT: .017 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 (64°F TO 72°F)



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

**CHARGING METHODS (At 20°C) Cycle use:** Maximum charging current 0.30A  
 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.

Distributed by:



When ordering new batteries, also remember to properly recycle your old lead batteries. Most federal and state regulations require lead-acid batteries be recycled. Yuasa, Inc.'s 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.



# YUASA

**Sales Offices**

Eastern Region: 201-641-5900 • 1-800-962-1287  
 FAX 201-641-8720

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

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