



## NP4-12 NP4-12FR

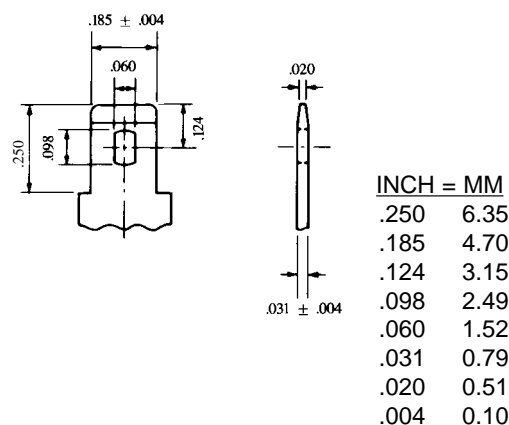
Sealed Rechargeable  
Lead-Acid Battery

### 12V, 4.0Ah

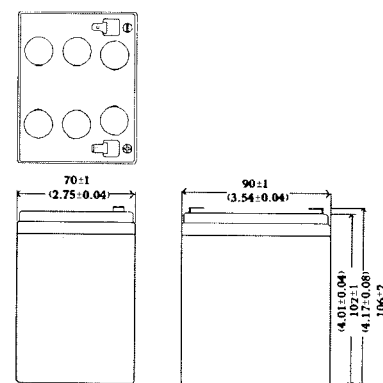
### Specifications

- **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-V0/L.O.I.>28%)

### Terminal



### Dimensions



DIMENSIONS: MM (INCHES)

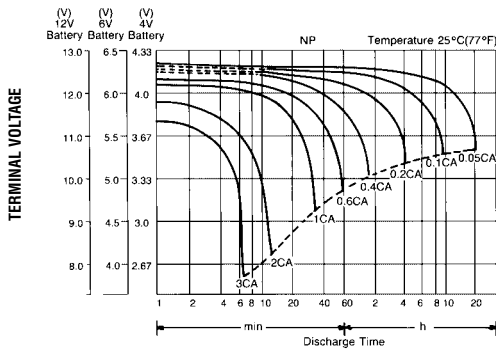
# EnerSys™

Power/Full Solutions™

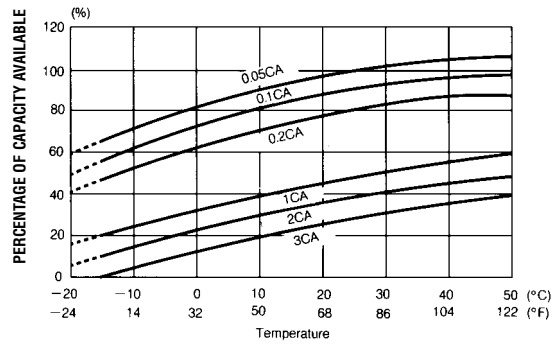


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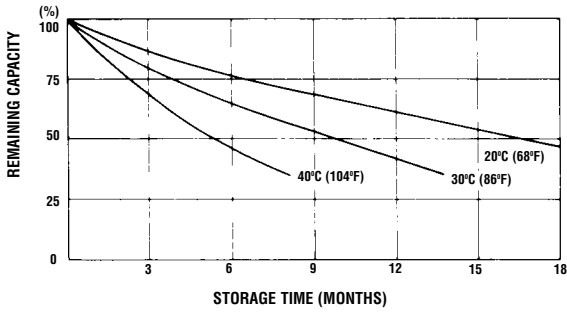
### DISCHARGE CHARACTERISTIC CURVES AT 25°C (77°F)



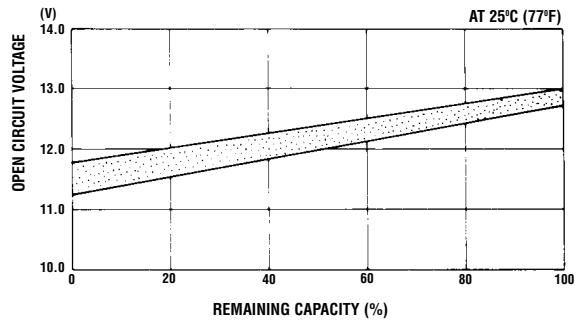
### TEMPERATURE EFFECTS IN RELATION TO BATTERY CAPACITY



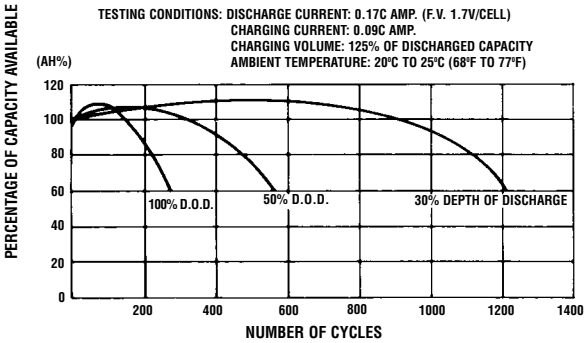
### SELF DISCHARGE CHARACTERISTICS



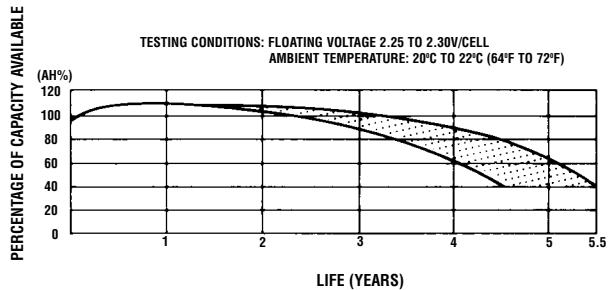
### OPEN CIRCUIT VOLTAGE VS REMAINING CAPACITY



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



### FLOAT SERVICE LIFE



When the battery will be used by 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.



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