



## NP33-12 NP33-12FR

Sealed Rechargeable  
Lead-Acid Battery

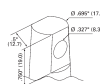
### 12V, 32.9Ah

### Specifications

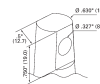
- **NOMINAL VOLTAGE:** 12V
- **NOMINAL CAPACITY:**
  - 20 hr. rate of 1.64A to 10.5V 32.9Ah
  - 10 hr. rate of 3.02A to 10.5V 30.2Ah
  - 5 hr. rate of 5.7A to 10.2V 28.5Ah
  - 1 hr. rate of 23.6A to 9.60V 23.6Ah
- **WEIGHT (approx.):** 24.0 pounds (10.9kgs)
- **ENERGY DENSITY (20 hr. rate):** 1.6 WH/cubic inch (98.8 WH/liter)
- **SPECIFIC ENERGY (20 hr. rate):** 16.5 WH/pound (36.2 WH/kg)
- **INTERNAL RESISTANCE OF CHARGED BATTERY:** 8.7 milliohms (approx.)
- **MAXIMUM DISCHARGE CURRENT WITH STANDARD TERMINALS:** 150 amperes
- **MAXIMUM SHORT-DURATION DISCHARGE CURRENT:** 500 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:** Universal or options in terminal diagram
- **HOUSING MATERIAL:** PP Resin
- **OPTIONAL:** Container and cover made from Flame Retardant PP (UL94-V0/L.O.I.>28%)

### Terminal

#### Standard

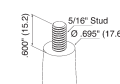


U Positive Terminal

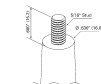


U Negative Terminal

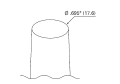
#### Optional



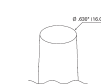
MG Positive



MG Negative



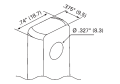
Automotive Type AP Positive



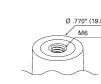
Automotive Type AP Negative

#### Terminal height above cover

Terminal Type	NP33-12 mm	ins
B	5.1	0.20
NB	22.8	0.90
MJ	28.4	1.12
AP	22.8	0.90
MG	38.1	1.50
U	22.8	0.90



NB Terminal



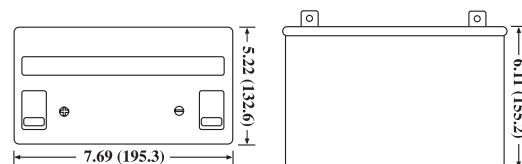
B Terminal



MJ Terminal

Note:  
Dimensions are in inches (mm)  
Tolerances are ± 0.04 in. (±1mm)  
and ± 0.08 in. (± 2mm) for height dimensions.

### Dimensions



DIMENSIONS: INCHES (MM)

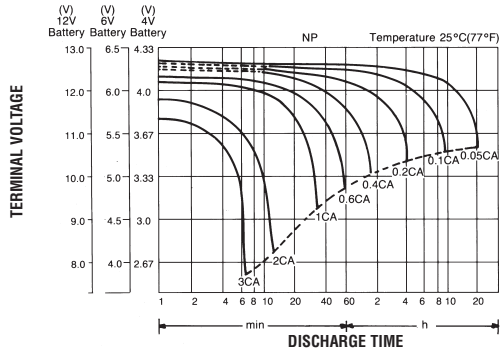


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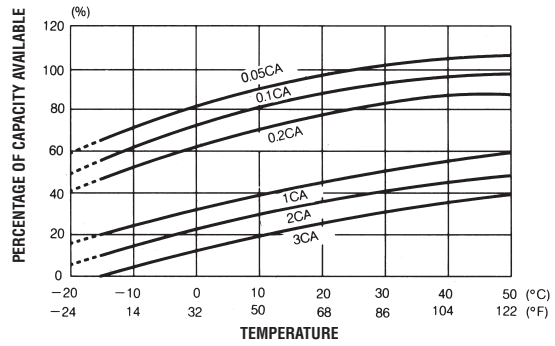
# EnerSys™

Power/Full Solutions™

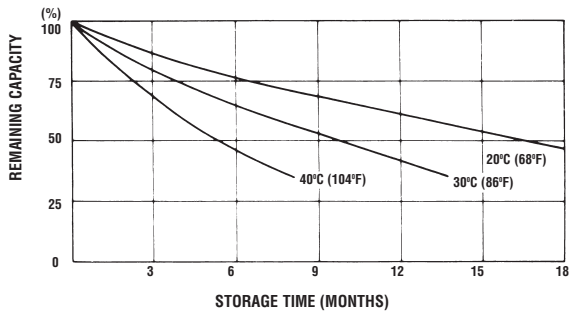
### DISCHARGE CHARACTERISTIC CURVES AT 25°C (77°F)



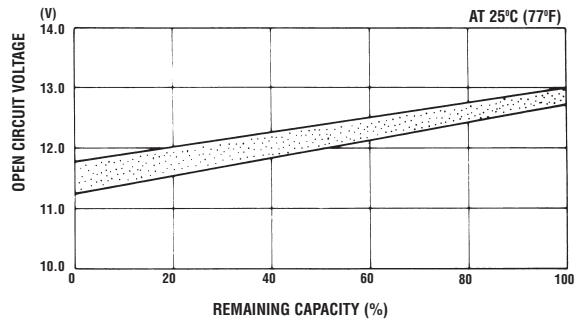
### TEMPERATURE EFFECTS IN RELATION TO BATTERY CAPACITY



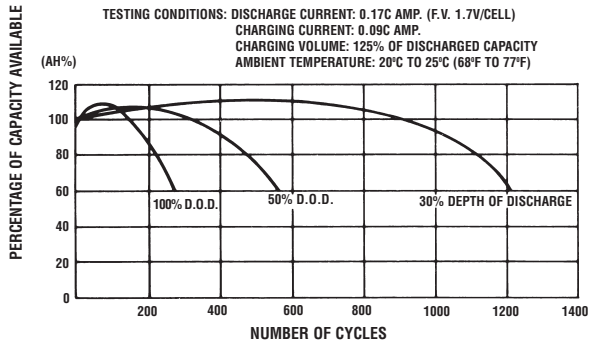
### SELF DISCHARGE CHARACTERISTICS



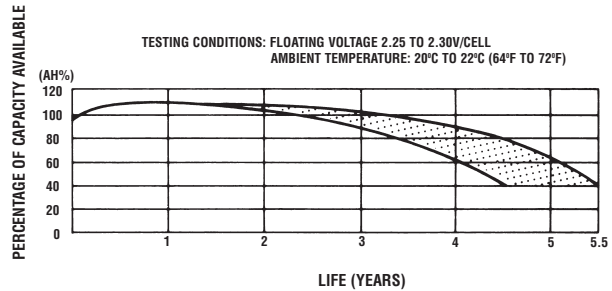
### OPEN CIRCUIT VOLTAGE VS REMAINING CAPACITY



### 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 prior to use.

#### CHARGING METHODS (At 20°C)

- Cycle use:** Maximum charging current 0.25C  
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.



**EnerSys**  
P.O. Box 14145  
Reading, PA 19612-4145  
USA  
Tel: +1-610-208-1991  
+1-800-538-3627

**EnerSys EMEA**  
Brussels, Belgium  
Tel: +32 (0)2 247 94 47  
**EnerSys Asia**  
Guangdong, China  
Tel: +86 755 2689 3639

Represented by:

