



NP33-12 NP33-12FR

Sealed Rechargeable
Lead-Acid Battery

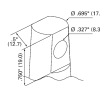
12V, 32.9Ah

Specifications

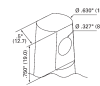
- **NOMINAL VOLTAGE:** 12V
- **NOMINAL CAPACITY:**
 - 20 hr. rate of 1.64A to 10.5V 32.9Ah
 - 10 hr. rate of 3.02A to 10.5V 30.2Ah
 - 5 hr. rate of 5.7A to 10.2V 28.5Ah
 - 1 hr. rate of 23.6A to 9.60V 23.6Ah
- **WEIGHT (approx.):** 24.0 pounds (10.9kgs)
- **ENERGY DENSITY (20 hr. rate):** 1.6 WH/cubic 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

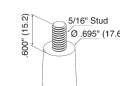


U Positive Terminal

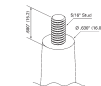


U Negative Terminal

Optional



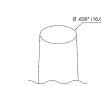
MG Positive



MG Negative



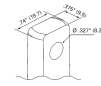
Automotive Type AP Positive



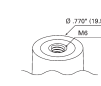
Automotive Type AP Negative

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



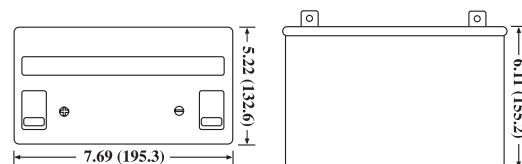
B Terminal



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)

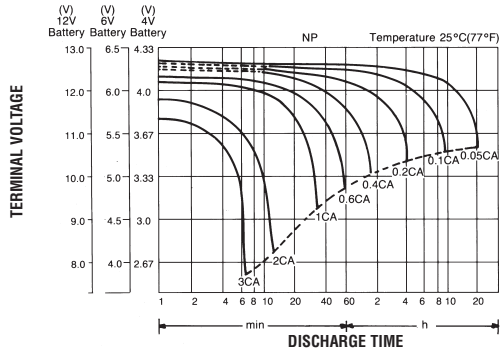


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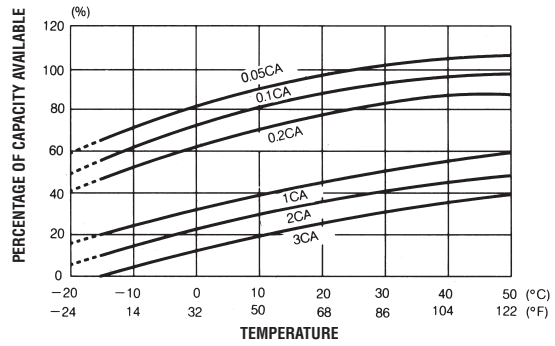
EnergSys™

Power/Full Solutions™

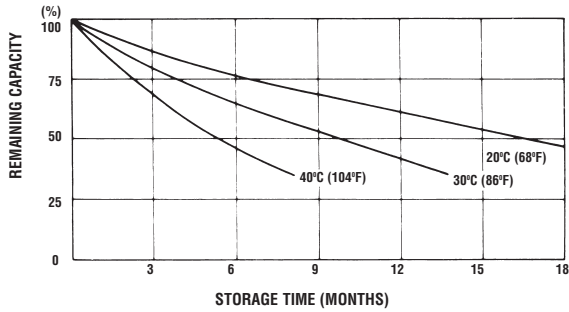
DISCHARGE CHARACTERISTIC CURVES AT 25°C (77°F)



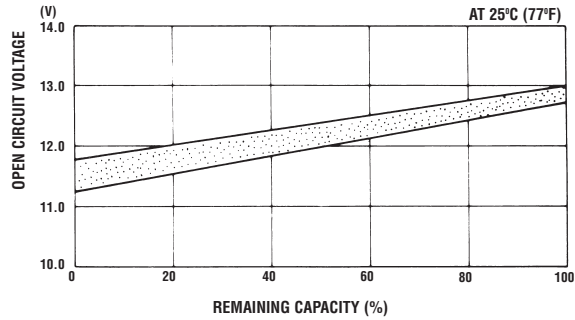
TEMPERATURE EFFECTS IN RELATION TO BATTERY CAPACITY



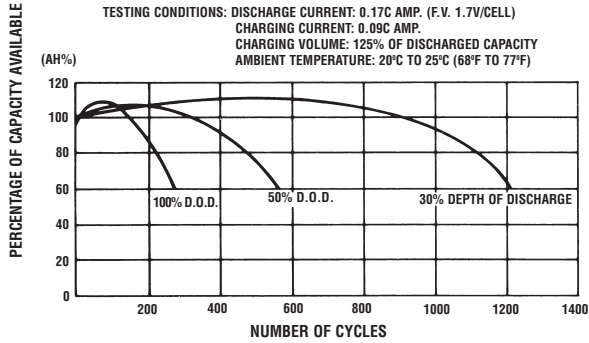
SELF DISCHARGE CHARACTERISTICS



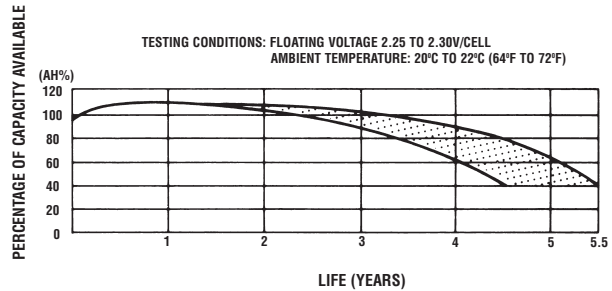
OPEN CIRCUIT VOLTAGE VS REMAINING CAPACITY



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.



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