



AGM BATTERY NL Series



NL2-500 (2V 500AH)

The rechargeable batteries are lead-lead dioxide systems. The dilute sulfuric acid electrolyte is absorbed by separators and plates and thus immobilized. Should the battery be accidentally overcharged producing hydrogen and oxygen, special one-way valves allow the gases to escape thus avoiding excessive pressure build-up. Otherwise, the battery is completely sealed and is, therefore, maintenance-free, leak proof and usable in any position.

Battery Construction

COMPONENT	POSITIVE PLATE	NEGATIVE PLATE	CONTAINER	COVER	SAFETY VALVE	TERMINAL	SEPARATOR	ELECTROLYTE
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper/Plug	Fiberglass	Sulfuric acid

Performance Characteristics

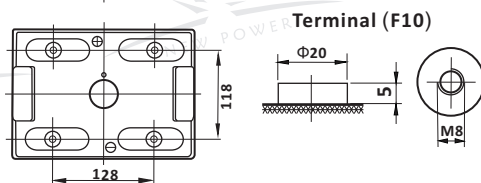
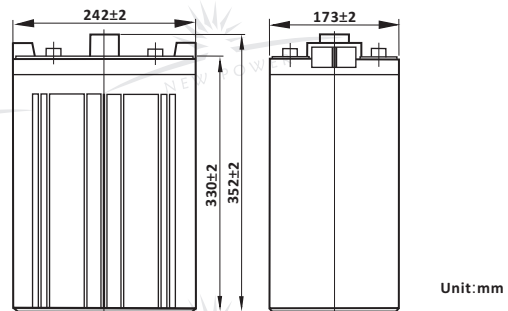
- **Nominal Voltage** 2V
- **Number of Cell** 1
- **Nominal Capacity (77°F / 25°C)**
 - 10 Hour rate (50A, 1.8V) 500Ah
 - 5 Hour rate (88A, 1.75V) 440Ah
 - 3 Hour rate (126A, 1.70V) 378Ah
 - 1 Hour rate (300A, 1.60V) 300Ah
- **Internal Resistance**
 - Fully charged battery (77°F / 25°C) 0.8mΩ
- **Capacity affected by temperature (20 hour rate)**
 - 104°F (40°C) 102% 32°F (10°C) 85%
 - 77°F (25°C) 100% 5°F (-15°C) 65%
- **Self-Discharge 68°F (20°C)**
 - Capacity after 3 month storage 90%
 - Capacity after 6 month storage 80%
 - Capacity after 12 month storage 60%
- **Max. discharge current 77°F / 25°C** 2000A(5S)
- **Charge Methods: constant voltage charge 77°F / 25°C**
 - Cycle use 2.35 ~ 2.45V
 - Max. Current 100A
 - Standby use 2.25 ~ 2.30V

General Features

- **Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.**
- **Not restricted for air transport-complies with IATA/ICAO Special Provision A67.**
- **A recognized component of CE and UL**
- **Computer designed lead, calcium tin alloy grid for high power density.**
- **Long service life, float or cyclic applications.**
- **Maintenance-free operation.**
- **Low self discharge**
- **Design life 15 years**

Dimensions and Weight

Type	Length	Width	Height	Total Height	Approx. Weight
SI Units	242mm	173mm	330mm	365mm	32Kg
English Units	9.53inch	6.81inch	13.0inch	14.4inch	70.5lbs



Constant Current Discharge (Amperes at 77°F/25°C)

V/cell	10min	15min	30min	45min	1h	3h	5h	10h
1.60	937	711	500	383	300	134	94.5	53.8
1.65	888	677	480	368	290	130	92.5	53.1
1.70	837	642	460	352	278	126	90.5	52.2
1.75	785	606	432	335	266	122	88.0	51.2
1.80	733	570	405	317	253	115	85.0	50.0

Constant Power Discharge (Watts at 77°F/25°C)

V/cell	10min	15min	30min	45min	1h	2h	3h	5h
1.60	1546	1156	930	771	625	378	270	167
1.65	1457	1094	883	736	599	361	260	164
1.70	1366	1030	836	699	572	345	247	161
1.75	1276	967	787	661	543	330	236	157
1.80	1187	903	738	623	514	304	217	149

(Note: The above characteristics data are average values obtained within three charge/discharge cycles not the minimum values.)



