



AGM BATTERY NL Series

NL2-400 (2V 400AH)



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

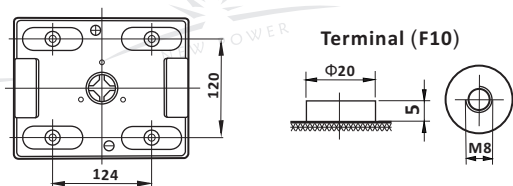
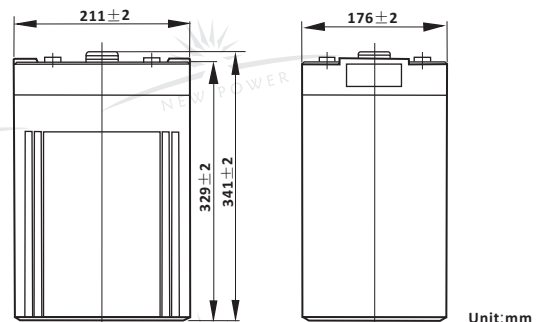
- **Nominal Voltage** 2V
- **Number of Cell** 1
- **Nominal Capacity (77°F / 25°C)**
 - 10 Hour rate (40A, 1.8V) 400Ah
 - 5 Hour rate (70A, 1.75V) 350Ah
 - 3 Hour rate (106A, 1.70V) 318Ah
 - 1 Hour rate (245A, 1.60V) 245Ah
- **Internal Resistance**
 - Fully charged battery (77°F / 25°C) 0.6mΩ
- **Capacity 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** 1600A(5S)
- **Charge Methods: constant voltage charge 77°F / 25°C**
 - Cycle use 2.35 ~ 2.45V
 - Max. Current 80A
 - 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	210mm	176mm	330mm	367mm	25.5Kg
English Units	8.27inch	6.93inch	13.0inch	14.5inch	56.2lbs



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

V/cell	10min	15min	30min	45min	1h	3h	5h	10h
1.60	732	587	424	325	245	114	75.5	43.0
1.65	694	559	405	312	236	110	73.8	42.4
1.70	654	530	385	298	227	106	71.8	41.7
1.75	614	500	365	284	217	102	70.0	40.9
1.80	573	470	344	269	206	98.0	67.0	40.0

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

V/cell	10min	15min	30min	45min	1h	2h	3h	5h
1.60	1285	912	740	643	495	311	215	140
1.65	1210	863	703	612	473	288	210	138
1.70	1135	813	665	578	452	272	204	135
1.75	1061	763	625	545	427	262	198	132
1.80	987	713	585	511	403	246	188	125

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



