



AGM BATTERY NF Series

NF12-180 (12V 180AH)



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

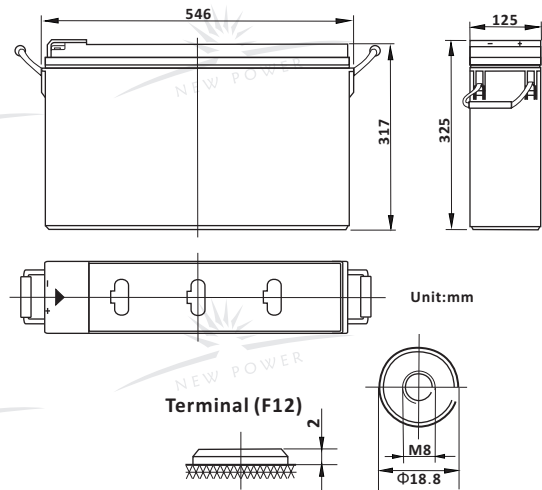
- **Nominal Voltage** 12V
- **Number of Cell** 6
- **Nominal Capacity (77°F /25°C)**
 - 20 Hour rate (9.5A, 10.8V) 190Ah
 - 10 Hour rate (18A, 10.8V) 180Ah
 - 5 Hour rate (32A, 10.5V) 160Ah
 - 1 Hour rate (118A, 9.6V) 118Ah
- **Internal Resistance**
 - Fully charged battery (77°F /25°C) 4mΩ
- **Capacity 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** 1000A(5S)
- **Charge Methods: constant voltage charge 77°F /25°C**
 - Cycle use 14.4 ~ 14.7V
 - Max. Current 45A
 - Standby use 13.6 ~ 13.8V

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 10 years**

Dimensions and Weight

Type	Length	Width	Height	Total Height	Approx. Weight
SI Units	546mm	125mm	317mm	325mm	57Kg
English Units	21.5inch	4.92inch	12.5inch	12.8inch	125.6lbs



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

V/cell	10min	15min	30min	45min	1h	5h	10h	20h
1.60	395	310	195	143	118	32.7	18.3	9.70
1.65	375	295	190	140	116	32.5	18.3	9.70
1.70	355	280	185	137	113	32.3	18.2	9.65
1.75	335	264	170	134	110	32.0	18.1	9.60
1.80	310	246	164	130	107	31.7	18.0	9.50

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

V/cell	10min	15min	30min	45min	1h	2h	3h	5h
1.60	675	530	355	280	222	134	96.0	65.0
1.65	645	508	345	274	218	132	95.0	64.5
1.70	615	485	335	268	214	130	94.0	64.0
1.75	585	463	324	262	209	128	93.0	63.5
1.80	550	440	312	254	205	125	92.0	62.8

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



