



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	Fiberglass	Sulfuric acid

Performance Characteristics

- **Nominal Voltage** 12V
- **Ampere Hour Capacity**
 - 20 Hours rate (2A, 10.8V) 40Ah
 - 10 Hours rate (1.9A, 10.8V) 38Ah
 - 5 Hours rate (6.8A, 10.5V) 34Ah
- **Minutes of Discharge**
 - 25A to 9.6V 62 56A to 9.6V 21
 - 75A to 9.6V 13 85A to 9.6V 11
 - 100A to 9.6V 9
- **Cranking Amps**
 - 32°F/0°C 290 0°F/-18°C 220
- **Internal Resistance**
 - Fully charged battery (77°F/25°C) 8.5mΩ
- **Self-Discharge (68°F/20°C)**
 - Capacity declined per month 3%
- **Opening temperature Range**
 - Discharge -20 ~ 60°C
 - Charge -10 ~ 50°C
 - Storage -20 ~ 60°C
- **Max. discharge current (77°F/25°C)** 400A(5S)
- **Short Circuit Current** 900A
- **Charge Methods: constant voltage charge (77°F/25°C)**
 - Cycle use 14.7 ~ 14.9V
 - Max. Current 10A
 - 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**

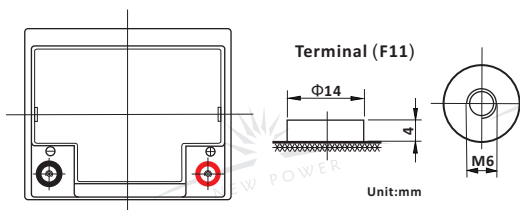
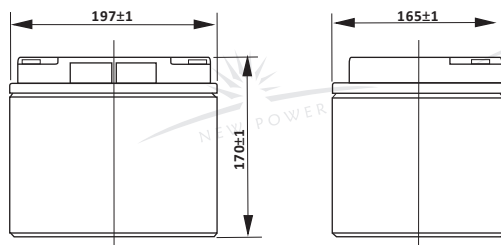
Constant Current Discharge (Amperes at 77°F/25°C)

V/cell	5min	10min	15min	30min	45min	1h	3h	5h	10h
1.60	140	92.0	72.0	39.5	31.5	25.0	10.3	7.05	4.02
1.65	136	89.5	70.1	38.4	30.8	24.4	10.2	7.00	3.98
1.70	131	86.5	68.0	37.2	30.0	23.9	10.0	6.90	3.93
1.75	125	83.0	65.8	36.2	29.2	23.4	9.80	6.80	3.88
1.80	117	79.0	63.3	34.7	28.3	22.8	9.55	6.65	3.80

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

V/cell	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60	240	158	115	72.5	56.2	46.5	28.5	19.8	13.7
1.65	231	152	111	70.0	54.3	45.0	27.7	19.3	13.5
1.70	220	145	106	67.0	52.1	43.3	26.8	18.7	13.2
1.75	207	137	101	63.5	49.7	41.5	25.9	18.1	12.9
1.80	192	128	95.0	59.5	47.0	39.5	24.9	17.4	12.6

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



Dimensions and Weight

Type	Length	Width	Height	Total Height	Approx. Weight
SI Units	197mm	165mm	170mm	170mm	13.3Kg
English Units	7.76inch	6.50inch	6.69inch	6.69inch	29.3lbs

