

## General features for MPG (GEL) battery

- \* Nanometer SiO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> gelled electrolyte technology for gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- \* Computer designed lead, calcium tin alloy grid for high power density.
- \* Not restricted for air transport-complies with IATA/ICAO Special Provision A67.UL-recognized component.
- \* Long service life, float or cyclic applications, specially suitable for motive power applications, such as golf trailer, srubber, folklift, etc.
- \* Maintenance-free operation. Lower self discharge.
- \* Case and cover available in both standard and flame retardant ABS.
- \* The design life to 6V GEL battery is 15 years, the deep discharge cycles increased over 50% as compared with the AGM battery.



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**MPG6-200II (6V200Ah)**

## Specifications

Nominal Voltage		6V
Rated capacity (20 hour rate)		200 Ah
Dimensions (±2mm)	Total Height	275 mm (10.83 inches)
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	Length	243mm (9.57 inches)
	Width	188mm (7.70 inches)
Weight Approx (±3%)		32.0 Kg (70.6 lbs)

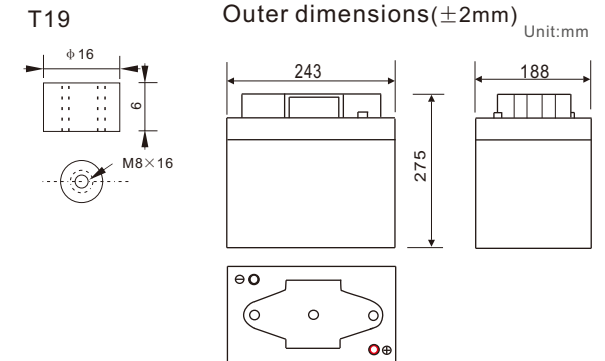
## Battery picture and construction



### Battery Construction

Component	Positive plate	Negative plate	Container	Cover
Raw material	Lead dioxide	Lead	ABS	ABS
Component	Electrolyte	Separator	Safety valve	Terminal
Raw material	Gelled acid	PVC	Rubber	Copper

## Outer dimension and terminal



## Characteristics

Capacity 25°C(77°F)	20 hour rate(10 A, 5.4V)	200Ah
	10 hour rate(18.4A, 5.4V)	184Ah
	5 hour rate(29.4A, 5.25V)	147Ah
	1 hour rate(110A, 4.8V)	110Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 2.3mΩ
Capacity affected by Temperature (20hour rate)	40°C (104°F)	102%
	25°C (77°F)	100%
	0°C (32°F)	85%
Remaining capacity Self-Discharge At 25°C(77°F)	Capacity after 3 month storage	91%
	Capacity after 6 month storage	82%
Terminal type	T19	
	Max. Discharge current 25°C/(77°F)	1500A (5Seconds)
Nominal operating temperature 25°C ±5°C(77°F ±9°F)		
Operating Temperature Range	Discharge	-20°C ~55°C (-4°F ~131°F)
	Charge	-10°C ~55°C (14°F ~131°F)
	Storage	-20°C ~55°C (-4°F ~131°F)
Charge methods (constant Voltage) At 25°C(77°F)	Cycle use	Initial Charging Current less than 50 A Voltage 7.25-7.50V Temperature compensation:-20mV/°C
	Standby use	Voltage 6.75-6.9V Temperature compensation:-30mV/°C

## Constant current discharge (25°C , 77 °F)

## Constant power discharge (25°C , 77 °F)

Unit:A

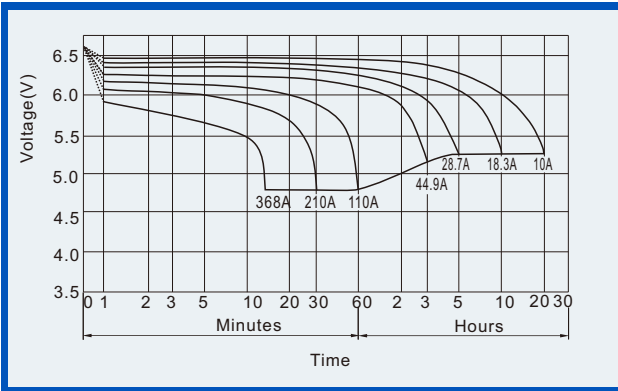
Unit:watts

Time		Unit:watts									
		10min	30min	1h	2h	3h	4h	5h	8h	10h	20h
4.80V	A	388	210	110	64.4	47.3	36.8	30.4	21.5	19.3	10.4
	W	2073	1128	596	354	263	207	173	123	112	60.7
5.10V	A	350	201	104	61.5	46.0	35.9	29.8	21.0	19.0	10.12
	W	1956	1126	587	354	266	209	174	123	111	59.4
5.25V	A	313	188	100	60.0	44.9	35.3	29.4	20.8	18.6	10.1
	W	1782	1080	582	348	262	207	173	122	110	59.7
5.40V	A	295	173	97	58.5	43.8	34.8	28.7	20.2	18.4	10.00
	W	1703	1002	565	343	258	205	170	120	109	59.6
5.55V	A	277	155	94	57.0	42.3	33.9	28.0	19.7	17.5	9.38
	W	1602	904	552	337	251	202	167	118	106	56.9

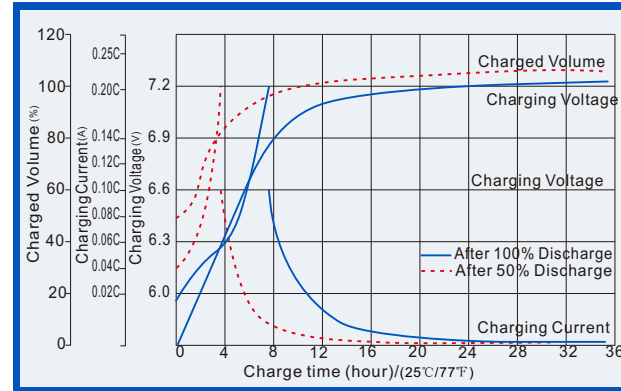
(Above characteristics data are average values obtained within three charge/discharge cycles, not the minimum values.)

# GEL Battery (GEL technology) Maintenance-free Sealed Lead Gel Rechargeable Battery

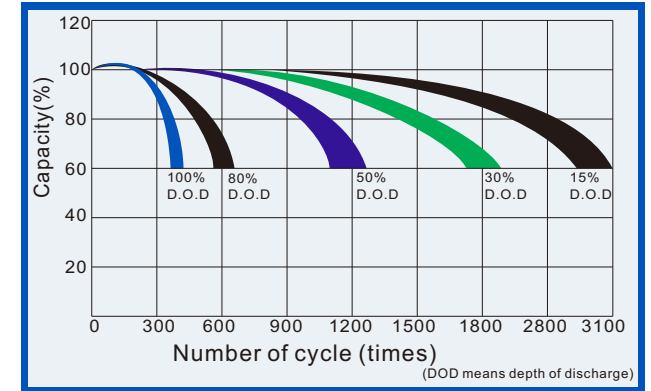
**Discharge characteristics (25°C, 77°F)**



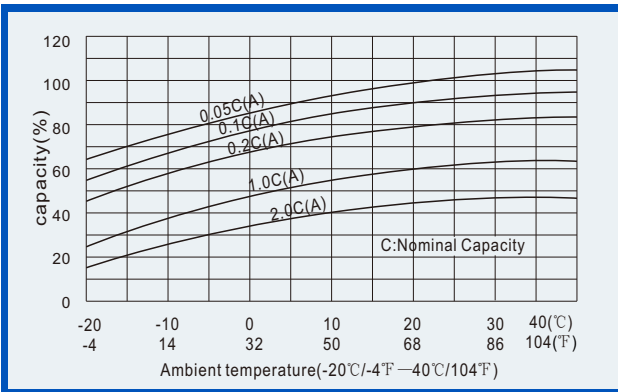
**Charge characteristics (25°C, 77°F)**



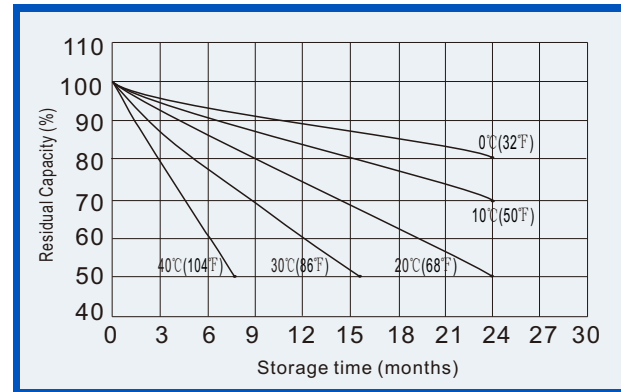
**Life characteristics of Cyclic Use (25°C, 77°F)**



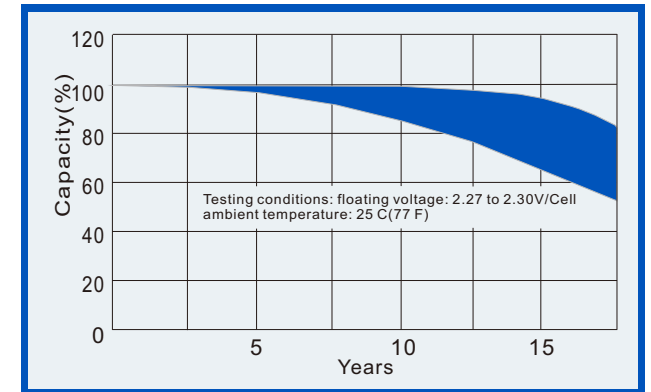
**Effect of Temperature on capacity**



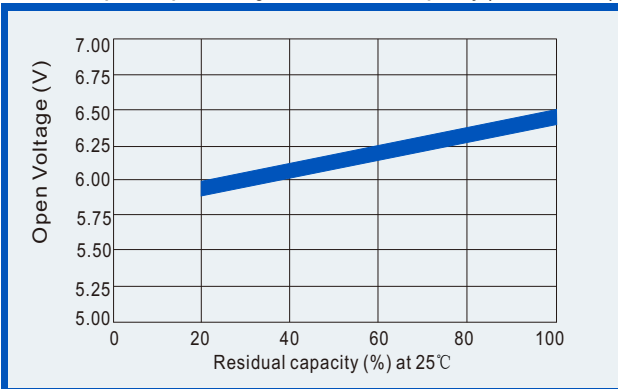
**Self-discharge characteristics**



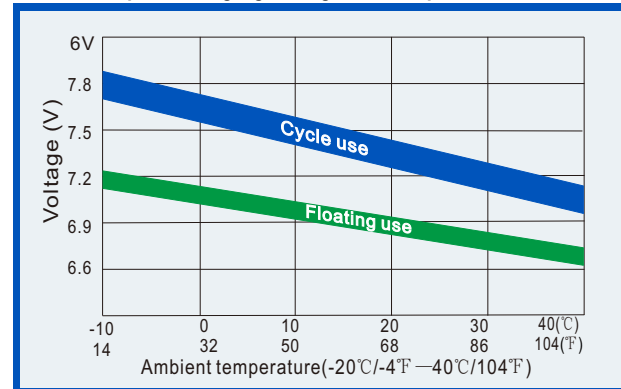
**Life Characteristics of float service (25°C, 77°F)**



**Relationships for open voltage and remained capacity (for reference)**



**Relationship for charging voltage and temperature**



**Temperature effects on floating life**

