

General features for MPG (GEL) battery

- * Nanometer SiO₂ and H₂SO₄ 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, sruubber, 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 15years, the deep discharge cycles increased over 50% as compared with the AGM battery.



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MPG6-180 (6V180Ah)

Specifications

Nominal Voltage		6V
Rated capacity (20 hour rate)		180 Ah
Dimensions (±2mm)	Total Height	252mm (9.92 inches)
	Height	247 mm (9.72 inches)
	Length	260 mm (10.2 inches)
	Width	180 mm (7.09 inches)
Weight Approx (±3%)		30 Kg (66.06 lbs)

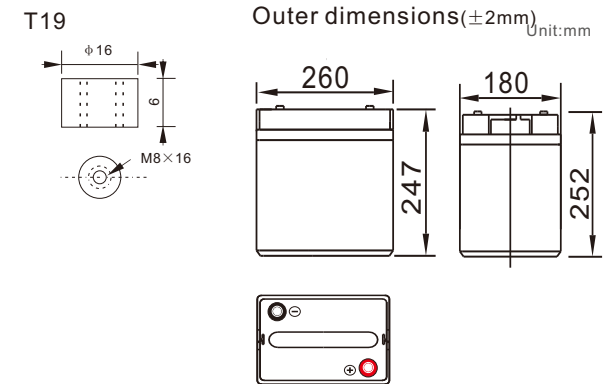
Battery picture and construction



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(9.0 A, 5.4V)	180Ah
	10 hour rate(16.6A, 5.4V)	166Ah
	5 hour rate(26.5A, 5.25V) 1 hour rate(99A, 4.8V)	132.5Ah 99Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 2.5mΩ
Capacity affected by Temperature (20hour rate)	40°C (104°F)	102%
	25°C (77°F)	100%
	0°C (32°F)	85%
	-15°C (5°F)	65%
Remaining capacity Self-Discharge At 25°C(77°F)	Capacity after 3 month storage	91%
	Capacity after 6 month storage	82%
	Capacity after 12 month storage	64%
Terminal type	T19	
Max. Discharge current 25°C/(77°F)	1400A (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 45 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

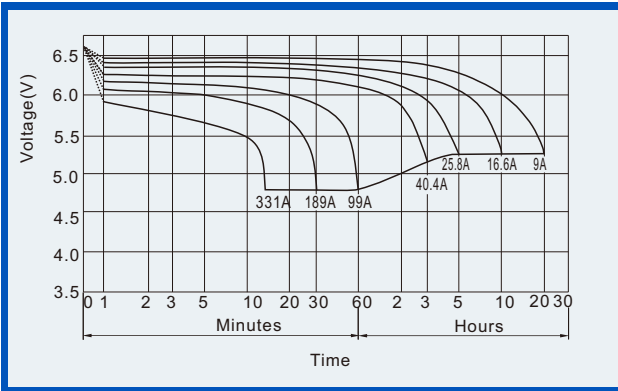
Unit:watts

Constant Current(Amp) and Constant Power(Watt) Discharge Table											
Time		10min	30min	1h	2h	3h	4h	5h	8h	10h	20h
4.80V	A	349	189	99	58.0	42.6	33.1	27.3	19.4	17.4	9.4
	W	1866	1015	537	318	237	186	155	111	100	54.6
5.10V	A	315	181	93	55.3	41.4	32.3	26.8	18.9	17.1	9.11
	W	1760	1013	528	319	240	188	156	110	100	53.4
5.25V	A	282	169	90	54.0	40.4	31.8	26.5	18.7	16.7	9.1
	W	1604	972	524	313	235	186	155	110	99	53.8
5.40V	A	266	156	87	52.7	39.4	31.3	25.8	18.2	16.6	9.00
	W	1533	902	509	308	232	185	153	108	98	53.6
5.55V	A	249	139	84	51.3	38.1	30.5	25.2	17.7	15.7	8.45
	W	1442	814	497	303	226	181	150	106	95	51.2

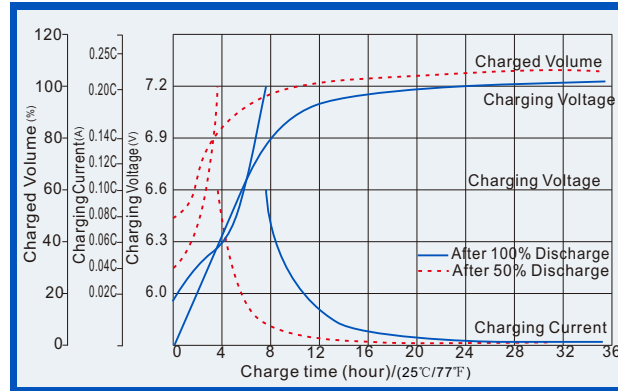
(Above characteristics data are average values obtained within three charge/discharge cycles, not the minimum values.)

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

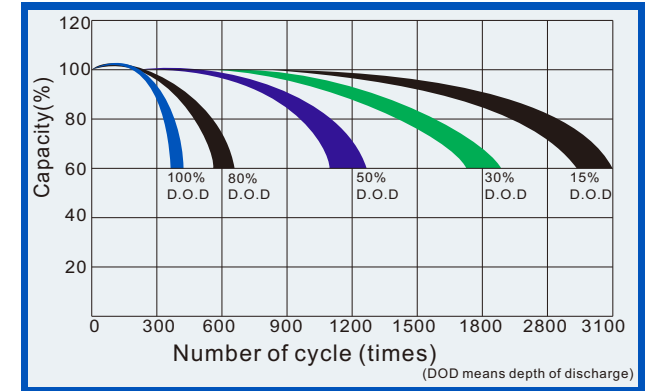
Discharge characteristics (25°C, 77°F)



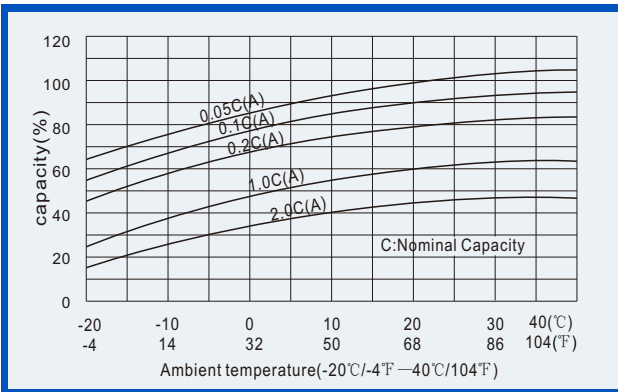
Charge characteristics (25°C, 77°F)



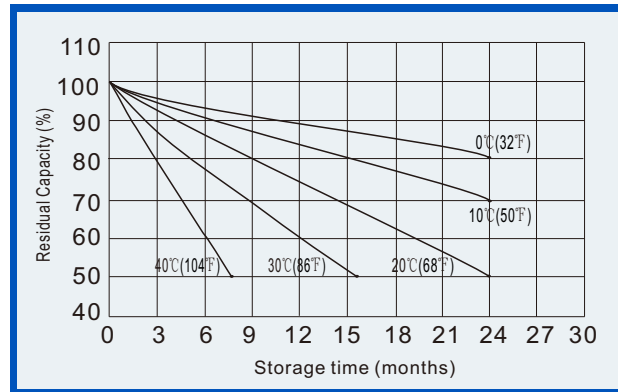
Life characteristics of Cyclic Use (25°C, 77°F)



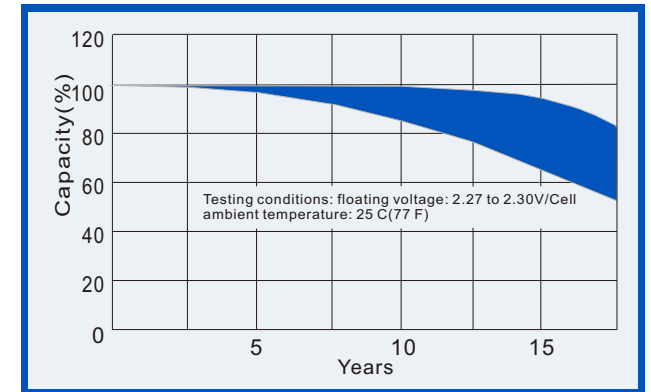
Effect of Temperature on capacity



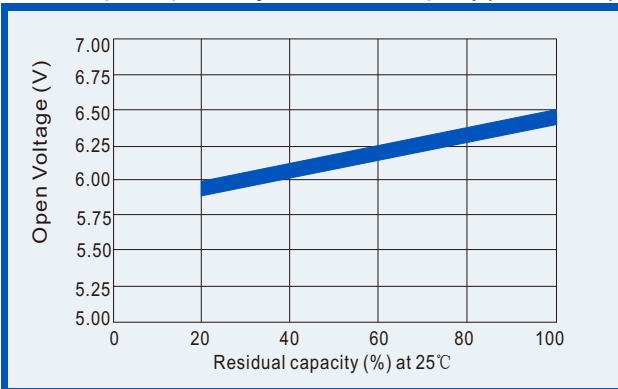
Self-discharge characteristics



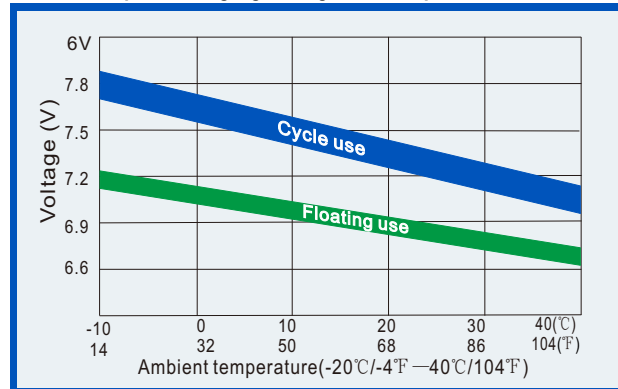
Life Characteristics of float service (25°C, 77°F)



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Temperature effects on floating life

