

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, srubber, folklift, etc.
- * Maintenance-free operation. Lower self discharge.
- * Case and cover available in both standard and flame retardant ABS.
- * The design life to 2V GEL battery is 20years, the deep discharge cycles increased over 50% as compared with the AGM battery.



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MPG2-800 (2V800Ah)

Specifications

Nominal Voltage		2 V
Rated capacity (10 hour rate)		800 Ah
Dimensions (±2mm)	Total Height (Include top cover)	367 mm (14.4 inches)
	Height	330 mm (13.0 inches)
	Length	410 mm (16.1 inches)
	Width	175 mm (6.89 inches)
Weight Approx (±3%)		54.6 Kg (120.3lbs)

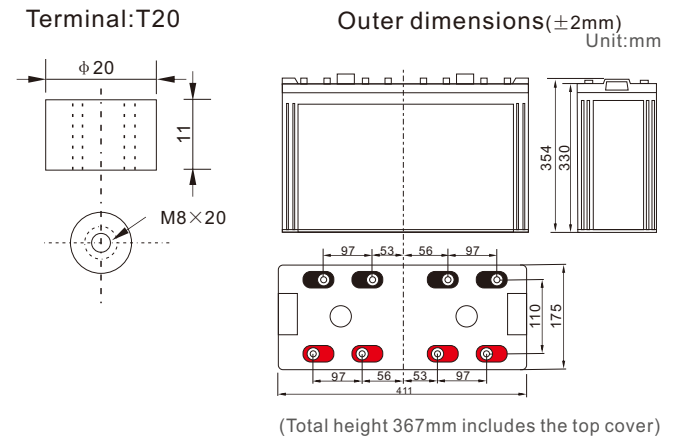
Battery picture and construction



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)	10 hour rate(80A, 1.8V) 5 hour rate(128A, 1.75V) 1 hour rate(480 A, 1.6V)	800Ah 640Ah 480Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.4mΩ
Capacity affected by Temperature (10hour rate)	40°C (104°F) 25°C (77°F) 0°C (32°F) -15°C (5°F)	102% 100% 85% 65%
Remaining capacity Self-Discharge At 25°C(77°F)	Capacity after 3 month storage Capacity after 6 month storage Capacity after 12 month storage	91% 82% 64%
Terminal type	T20	
Max. Discharge current 25°C/(77°F)	5500A (5Seconds)	
Nominal operating temperature	25°C ±5°C(77°F ±9°F)	
Operating Temperature Range	Discharge Charge Storage	-20°C ~60°C (-4°F ~140°F) -10°C ~60°C (14°F ~140°F) -20°C ~60°C (-4°F ~140°F)
Charge methods (constant Voltage) At 25°C(77°F)	Cycle use Standby use	Initial Charging Current less than 200 A Voltage 2.42-2.50V Temperature compensation:-5mV/°C Voltage 2.25-2.30V Temperature compensation:-3mV/°C

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

Unit:A

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

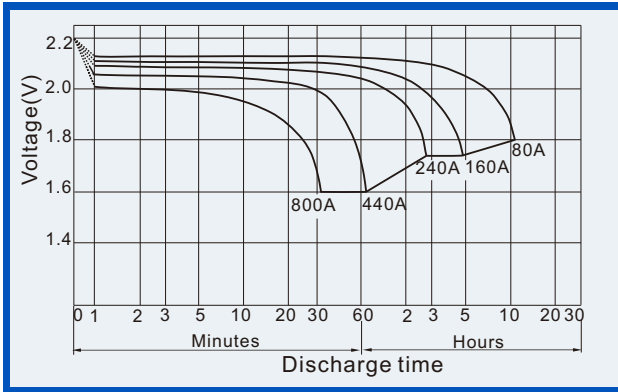
Unit:watts

Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)													
Time		5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	A	2562	1688	1361	912	480	280.0	205.6	160.0	132.0	93.6	84.0	45
	W	4407	3005	2432	1634	864	512	381.4	300.0	250.1	178.8	161.7	88
1.70V	A	2482	1523	1282	872	451	267.2	200.0	156.0	129.6	91.2	82.4	44.0
	W	4417	2835	2390	1632	851	513	386.0	302.3	251.8	177.8	161.3	86.0
1.75V	A	2401	1362	1121	816	437	260.8	195.2	153.6	128.0	90.4	80.8	44.0
	W	4369	2583	2132	1565	843	504	379.1	299.5	250.1	177.2	159.3	86.7
1.80V	A	2314	1284	1042	752	422	254.4	190.4	151.2	124.8	88.0	80.0	43.2
	W	4326	2468	2000	1452	819	497	374.1	297.6	245.9	173.8	158.5	85.8
1.85V	A	2236	1203	962	672	408	248.0	184.0	147.2	121.6	85.6	76.0	40.8
	W	4226	2322	1866	1310	800	489	364.3	292.2	241.9	170.9	152.9	82.4

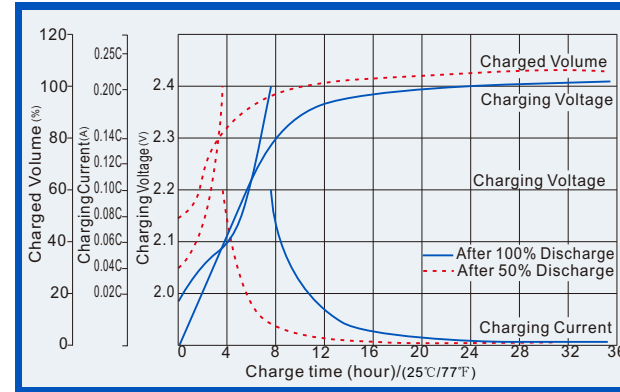
(Above characteristics data are average values obtained within three charge/discharge cycles, not the minimum values.)

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

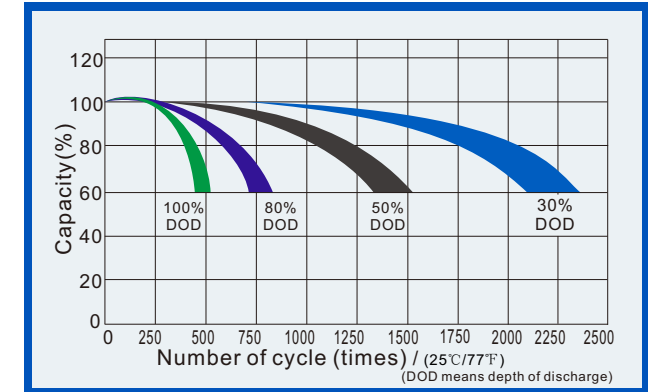
Discharge characteristics (25°C, 77°F)



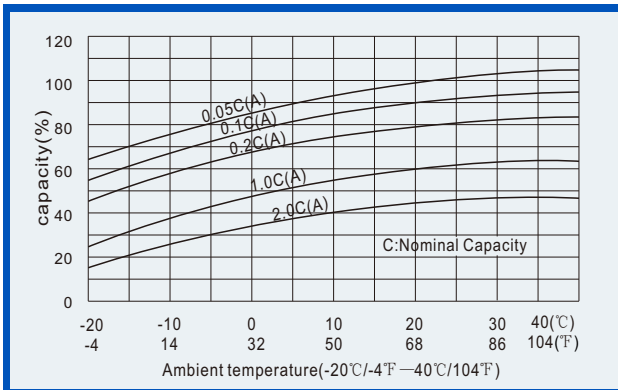
Charge characteristics (25°C, 77°F)



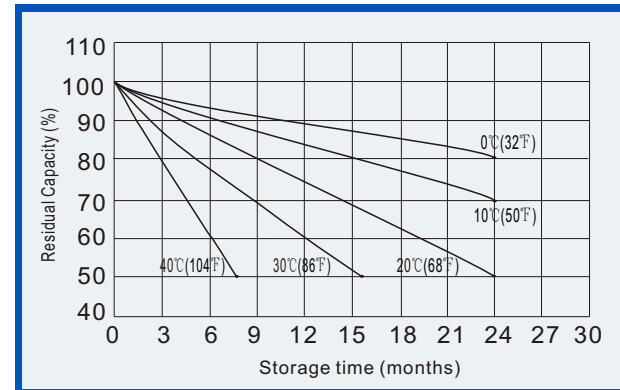
Life characteristics of Cyclic Use (25°C, 77°F)



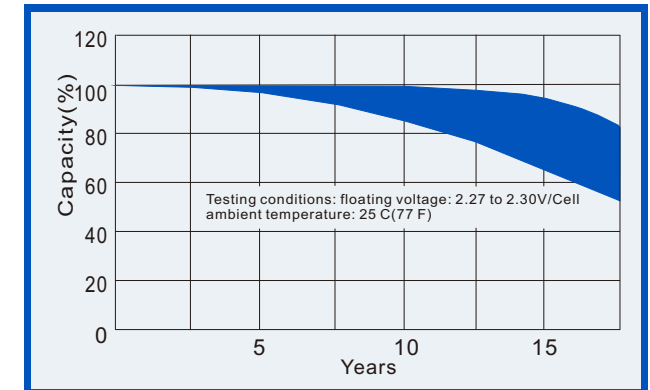
Effect of Temperature on capacity



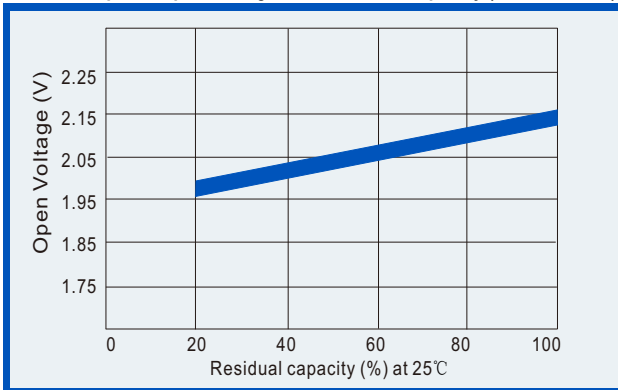
Self-discharge characteristics



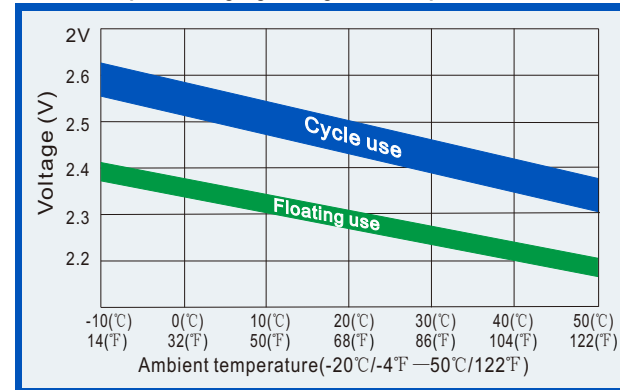
Life Characteristics of float service (25°C, 77°F)



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Temperature effects on floating life

