

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 2V GEL battery is 20years, the deep discharge cycles increased over 50% as compared with the AGM battery.



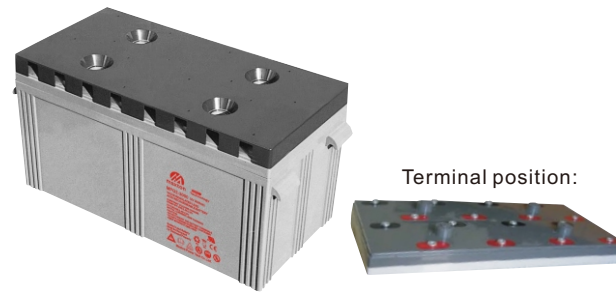
Maxton Power Tech Co., Ltd
www.maxtonpower.com
info@maxtonpower.com

MPG2-3000 (2V3000Ah)

Specifications

Nominal Voltage		2 V
Rated capacity (10 hour rate)		3000 Ah
Dimensions (±2mm)	Total Height (Include top cover)	382 mm (15.0 inches)
	Height	343mm (13.5 inches)
	Length	712 mm (28.0 inches)
	Width	353 mm (13.9 inches)
Weight Approx (±3%)		203.0 Kg (447.7 lbs)

Battery picture and construction

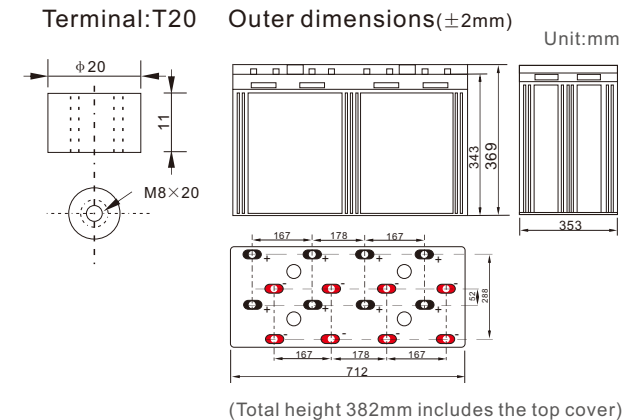


Terminal position:

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(300A, 1.8V) 5 hour rate(480A, 1.75V) 1 hour rate(1800 A, 1.6V)	3000Ah 2400Ah 1800Ah
Internal Resistance	Full charged battery at 25°C(77°F)	Approx 0.13mΩ
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)	15000A (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 750 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

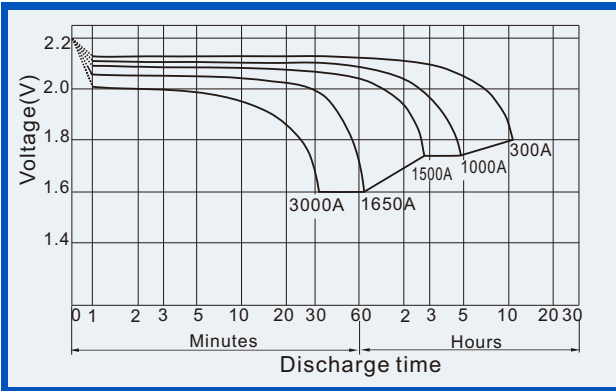
Constant Current(Amp) and Constant Power(Watt) Discharge Table at 25°C(77°F)

Time	5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	A 9609	6330	5103	3420	1800	1050.0	771.0	600.0	495.0	351.0	315.0	170
	W 16527	11267	9119	6129	3240	1922	1430.2	1125.0	938.0	670.4	606.4	330
1.70V	A 9306	5712	4806	3270	1692	1002.0	750.0	585.0	486.0	342.0	309.0	165.0
	W 16565	10630	8963	6118	3189	1925	1447.5	1133.7	944.3	666.9	605.0	322.6
1.75V	A 9003	5109	4203	3060	1638	978.0	732.0	576.0	480.0	339.0	303.0	165.0
	W 16385	9687	7994	5869	3161	1890	1421.5	1123.2	937.9	664.4	597.5	325.1
1.80V	A 8676	4815	3906	2820	1584	954.0	714.0	567.0	468.0	330.0	300.0	162.0
	W 16224	9254	7500	5445	3073	1862	1403.0	1115.9	922.0	651.8	594.3	321.6
1.85V	A 8385	4512	3606	2520	1530	930.0	690.0	552.0	456.0	321.0	285.0	153.0
	W 15848	8708	6996	4914	2999	1832	1366.2	1095.7	907.0	640.7	573.4	309.1

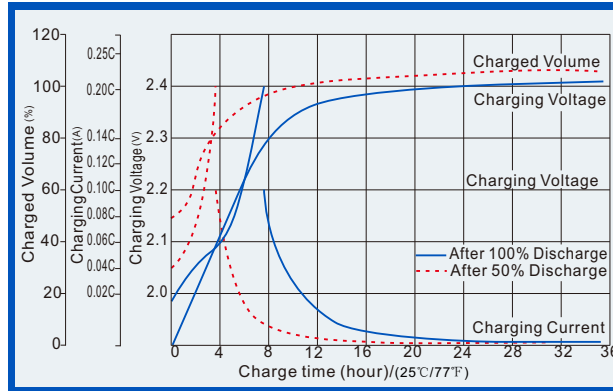
(Above characteristics data are average values obtained within three charge/discharge cycles, not the minimum values.)

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

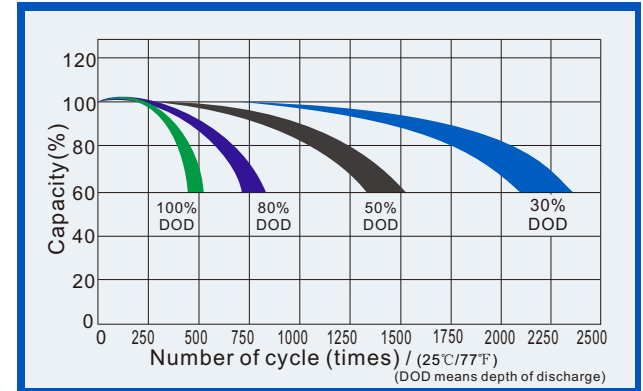
Discharge characteristics (25°C, 77°F)



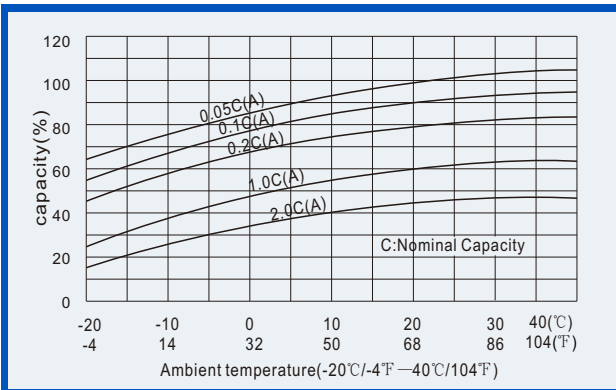
Charge characteristics (25°C, 77°F)



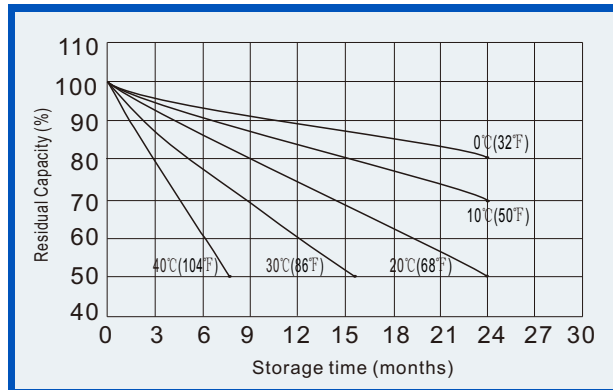
Life characteristics of Cyclic Use (25°C, 77°F)



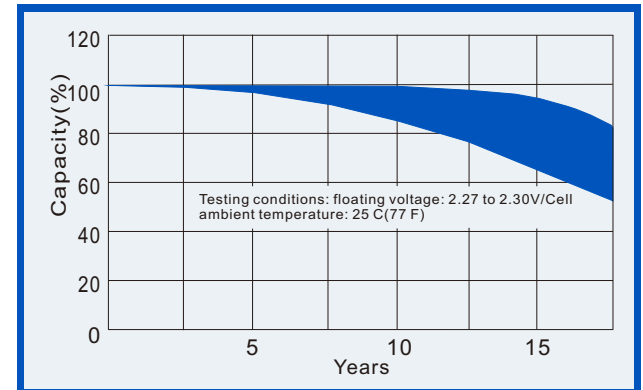
Effect of Temperature on capacity



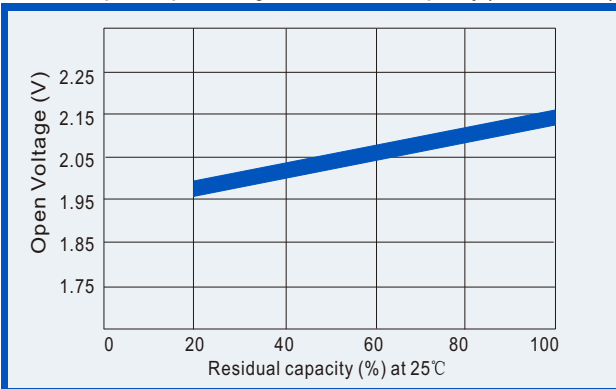
Self-discharge characteristics



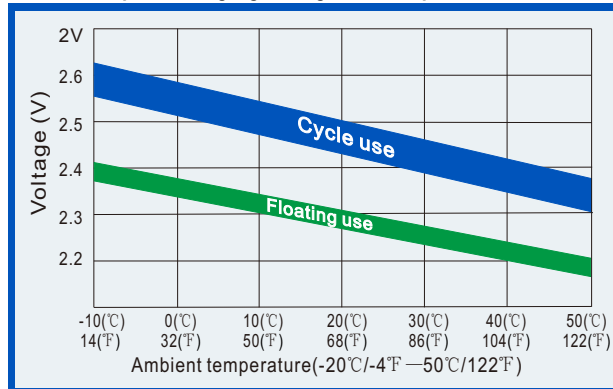
Life Characteristics of float service (25°C, 77°F)



Relationships for open voltage and remained capacity (for reference)



Relationship for charging voltage and temperature



Temperature effects on floating life

