

# MPG Series AGM-GEL Battery

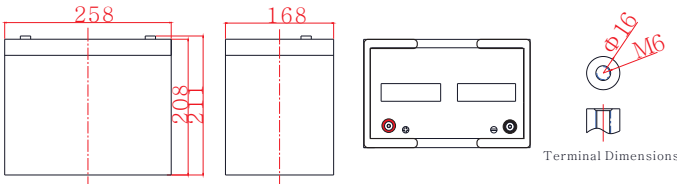


## General Features

- › Nanosilica colloidal electrolyte and high tin positive plate alloy design to enhance battery performance
- › Relatively rich electrolyte, high temperature and low temperature performance is superior
- › Long cycle life, excellent deep cycle discharge ability
- › Excellent charge acceptance ability
- › Precision sealing technology
- › Long life



Dimension: 258(L) × 168(W) × 208(H) × 211(TH) Unit: mm



## Applications

- › Solar / wind energy and other new energy storage
- › UPS/EPS
- › Power systems
- › Telecommunications system
- › Emergency lighting, Auto control system
- › Other general purpose

## Specification

Nominal Voltage	12V
Nominal Capacity	80Ah
Design life	12 years
Terminal	M6
Approx. Weight	Approx 24.0kg (52.9lbs)
Container Material	ABS
Rated Capacity	80.0Ah → 10Hour Rate (8.00A to 10.8V)
	63.3Ah → 3Hour Rate (21.1A to 10.8V)
	51.3Ah → 1Hour Rate (51.3A to 10.5V)
Internal resistance	Full charged at 25°C: 7.8 mΩ
Max. Discharge Current	960A(5S)
Operating Temperature	Discharge: -40 ~60°C (-40 ~ 140°F)
	Charge: -20 ~50°C (-4 ~ 122°F)
	Storage: -20 ~50°C (-4 ~ 122°F)
Charge current:	Max. 20.0A ; Recom. 8.0A
Charge Method (25 °C)	Float Charge: 13.5-13.8V, recom. 13.8V (-18mV/ °C)
	Equalize charge: 13.8-14.1V, recom. 14.1V (-24mV/ °C)
	Cycle charge: 14.4-15.0V, recom. 14.7V (-30mV/ °C)
Self discharge	3% of capacity declined per month at 25°C

## Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

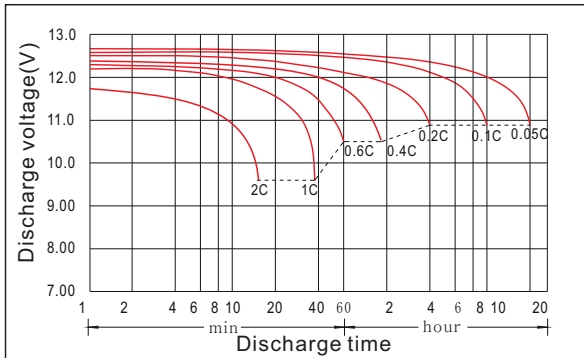
FV/Time	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	147	89.4	52.8	30.3	22.0	14.8	9.68	8.28	4.35
1.65V	142	87.8	52.5	30.1	21.7	14.6	9.60	8.20	4.32
1.70V	139	86.3	52.1	29.9	21.4	14.4	9.53	8.12	4.30
1.75V	135	85.6	51.3	29.4	21.2	14.3	9.45	8.04	4.28
1.80V	126	81.8	50.0	28.9	21.1	13.9	9.37	8.00	4.26
1.85V	112	74.7	46.3	27.4	19.8	13.2	8.99	7.72	4.19

## Constant Power Discharge Characteristics Unit: W/cell (25°C, 77°F)

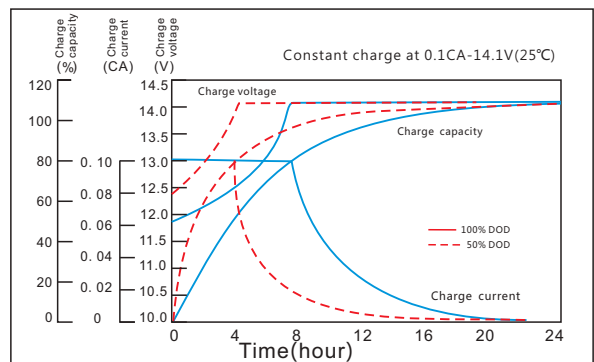
FV/Time	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	259	162	100	57.2	41.8	28.0	18.8	15.9	8.60
1.65V	254	160	99.0	57.1	41.3	27.8	18.7	15.8	8.56
1.70V	251	160	98.3	56.9	41.0	27.6	18.6	15.6	8.52
1.75V	250	159	97.5	56.5	40.8	27.4	18.4	15.4	8.48
1.80V	236	156	96.7	56.4	40.6	27.1	18.3	15.3	8.44
1.85V	211	143	89.8	53.9	38.6	25.9	17.7	15.0	8.36

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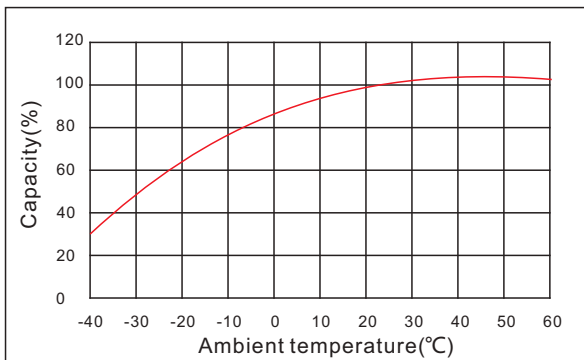
Discharge characteristic



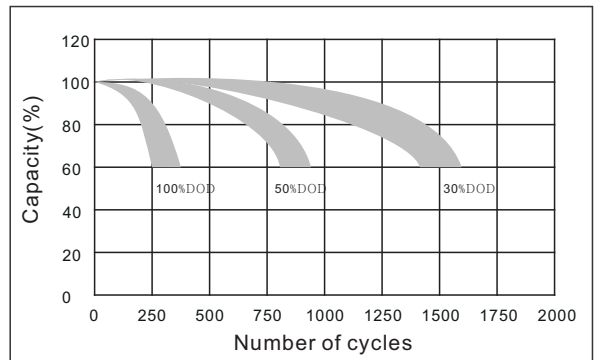
Charging characteristic



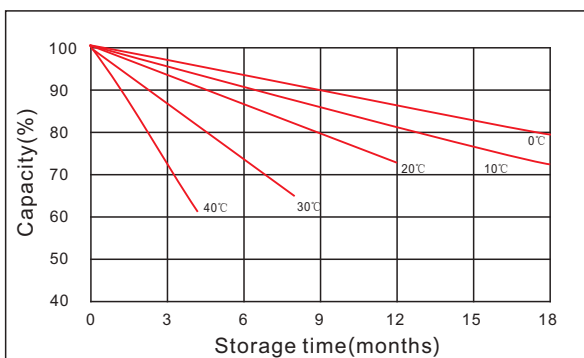
The effect of temperature on capacity



The effect of discharge depth on cycle life



Curves of self-discharge



Curves of open circuit voltage vs. capacity

