

GEL SERIES BATTERY

6FM50G/12Volt 50Ah

Gel series is specially designed for power supply under extreme weather condition. It can be designed with AGM or PE separator, by using strong grids, high purity lead and patented Gel electrolyte, With 15-year design life, it has rapid charging acceptance and floating or cyclic endurance.

APPLICATION

- ☆ Emergency Power System
- ☆ Communication equipment
- ☆ Telecommunication systems
- ☆ Uninterruptible power supplies
- ☆ Electric toy car and wheelchairs, etc
- ☆ Power tools
- ☆ Alarm system
- ☆ Marine equipment
- ☆ Medical equipment
- ☆ Fire and Security System

GENERAL FEATURES

- ☆ Heavy Duty Grid
- ☆ Mechanized assembly
- ☆ Non-spillable construction
- ☆ High Reliability and Stability
- ☆ Sealed and Maintenance-free
- ☆ Long Life and low self-discharge design

CONSTRUCTION

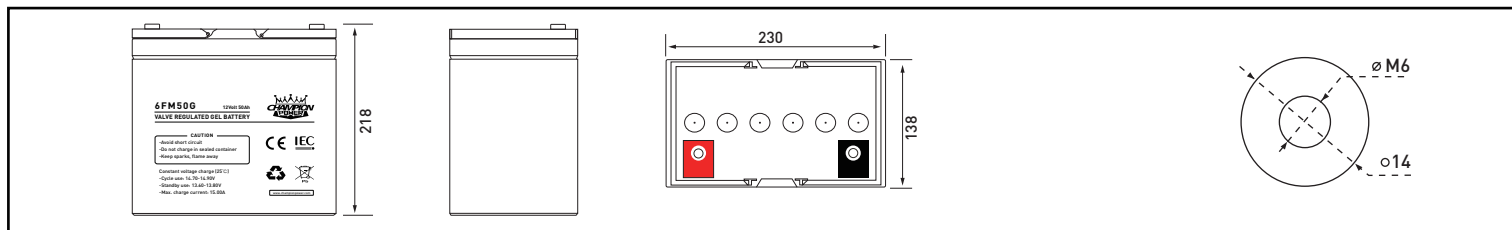
- ☆ Container: ABS(UL94-HB) / Flame Retardant ABS (UL94-V0)
- ☆ Negative: Lead
- ☆ Electrolyte: Acid+Fumed Silica
- ☆ Safety Valve: EPDR
- ☆ Positive: Lead dioxide
- ☆ Separator: AGM or PE
- ☆ Terminal: Copper

SPECIFICATION

Battery Model	Nominal Voltage	12V		
	Rated capacity (10Hour rate)	50Ah		
	Cells Per battery	6		
Dimension	Length	Width	Height	Total Height
	230mm	138mm	208mm	218mm
Approx Weight	15.80Kg			
Internal Resistance	Full charged at 25°C(77°F): Approx 9.0mΩ			
Max.discharge current	400A(5s)			
Floating design life @ 25°C (77°F)	15 years			
Capacity @ 25°C (77°F)	10Hour rate(5.00A/10.8V)	5Hour rate(8.50A/10.5V)	3Hour rate(12.50A/10.5V)	1Hour rate(27.50A/10.5V)
	50Ah	43Ah	38Ah	28Ah
Capacity affected by Temp(10 HR)	40°C (104°F)	25°C (77°F)	0°C (32°F)	-15°C(5°F)
	102%	100%	85%	65%
Self Discharge @ 25°C (77°F)	After 3 months storage	After 6 months storage	After 12 months storage	
	93%	84%	65%	
Charge method @ 25°C (77°F)	Cycle Use	14.70-14.90V (Max. charge current: 15.00A)		
	Float Use	13.60-13.80V		

OUTER DIMENSION (mm)

TERMINAL TYPE (mm)

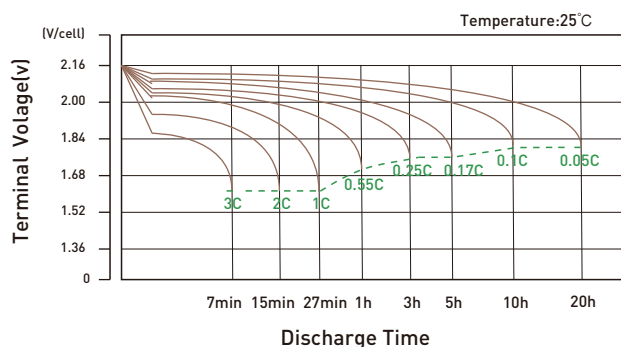


CONSTANT CURRENT(AMP) AND CONSTANT POWER(WATT) DISCHARGE TABLE AT 25°C (77°F)

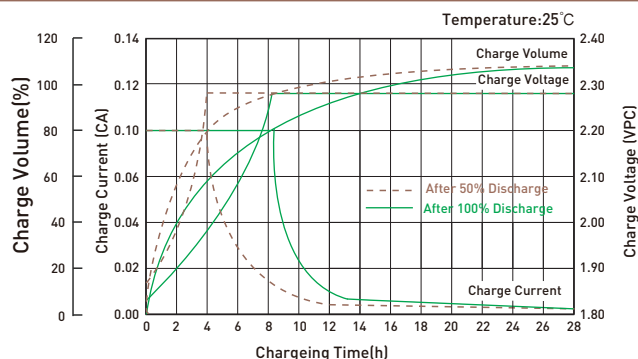
F.V / TIME		5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
9.60V	A	180.00	110.00	87.50	57.50	30.25	17.50	13.00	10.50	8.77	5.79	5.50	2.85
	W	1908.00	1168.20	936.25	621.00	329.73	190.75	143.00	115.50	96.48	64.29	61.05	32.06
10.20V	A	165.00	105.50	80.42	54.58	30.00	16.79	12.75	10.00	8.60	5.70	5.25	2.80
	W	1798.50	1171.05	896.65	614.06	337.50	189.75	144.08	113.50	97.66	64.70	59.59	31.78
10.50V	A	153.02	100.83	75.00	52.92	27.50	16.46	12.50	9.50	8.50	5.63	5.15	2.77
	W	1683.23	1134.34	847.50	603.25	313.50	188.45	143.13	109.25	97.75	64.69	59.23	31.80
10.80V	A	139.33	99.96	70.00	50.50	28.50	16.04	12.25	9.33	8.13	5.48	5.00	2.73
	W	1532.67	1139.54	801.50	583.28	329.18	185.28	142.10	108.73	94.66	63.83	58.25	31.80
11.10V	A	120.50	95.00	65.00	47.00	27.50	15.63	11.75	9.17	7.77	5.33	4.88	2.70
	W	1361.65	1097.25	754.00	549.90	321.75	182.81	138.06	108.17	91.70	62.93	57.53	31.86

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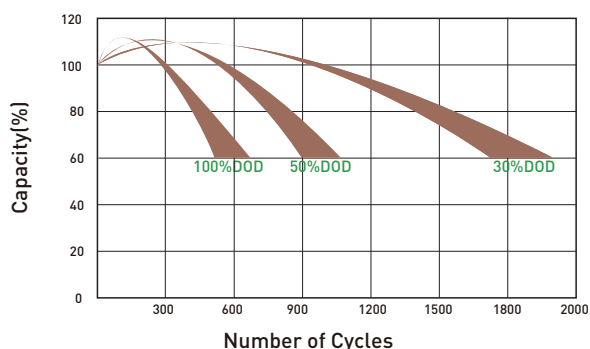
Discharge characteristic Curve



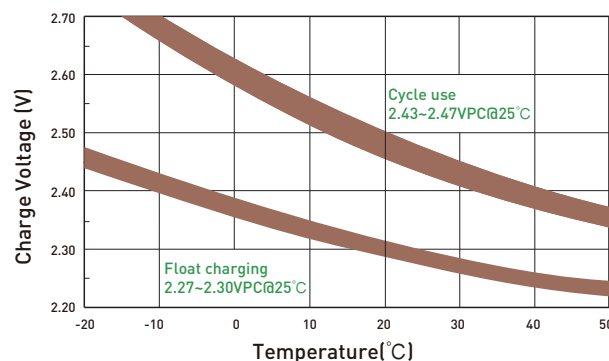
Charge Characteristic Curve For Standby Use



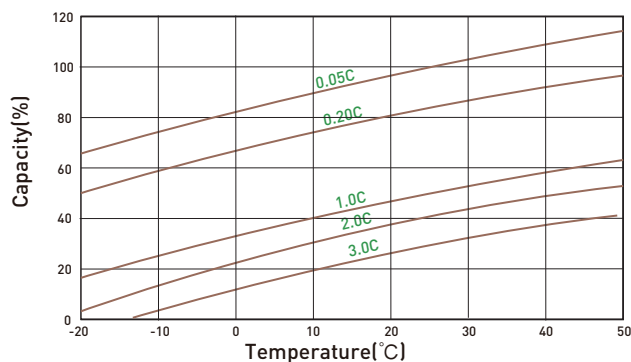
Cycle service life in relation to depth of discharge



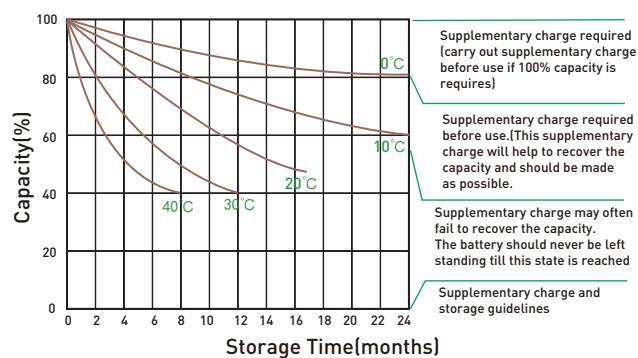
Relationship Between Charging Voltage And Temperature



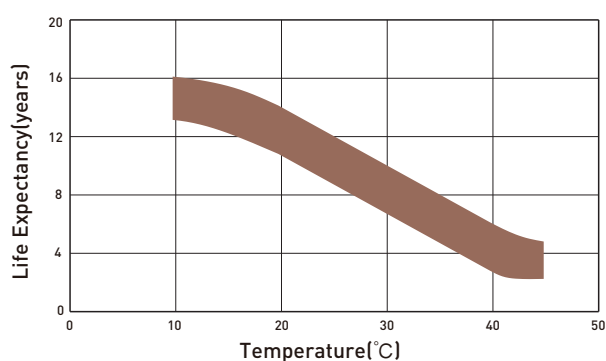
Temperature Effects On Capacity



Storage Characteristics



Effect Of emperature On Long Term Life



Relationship of OCV And State of Charge

