

## GENERAL SERIES BATTERY

## 6FM4.5/12Volt 4.5Ah

General Series VRLA batteries are designed with AGM(Absorbent Glass Mat) technology, High performance plates and electrolyte to give extra power output for common power backup system. General Series Batteries are the general purpose batteries with 5 years floating design life at 25°C.

### 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

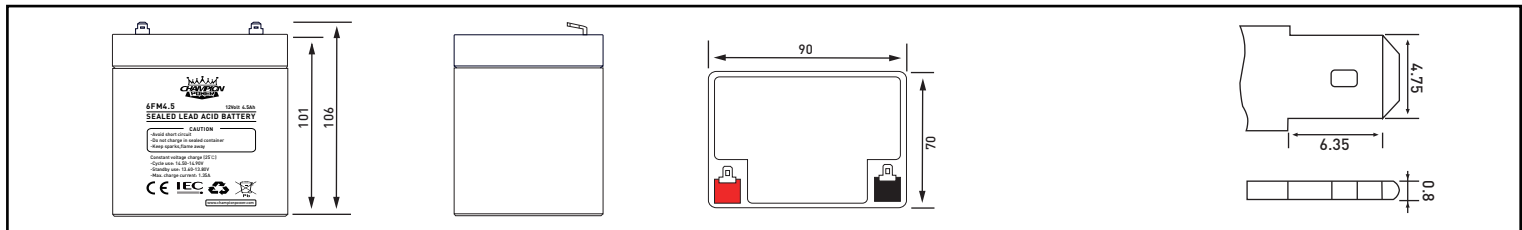
- ☆ Container: ABS(UL94-HB) / Flame Retardant ABS (UL94-V0)
- ☆ Negative: Lead
- ☆ Electrolyte: Sulfuric acid
- ☆ Safety Valve: EPDR
- ☆ Positive: Lead dioxide
- ☆ Separator: Fiber glass
- ☆ Terminal: Copper

### SPECIFICATION

Battery Model	Nominal Voltage	12V		
	Rated capacity (20Hour rate)	4.5Ah		
	Cells Per battery	6		
Dimension	Length	Width	Height	Total Height
	90mm	70mm	101mm	106mm
Approx Weight	1.43Kg			
Internal Resistance	Full charged at 25°C(77°F): Approx 38mΩ			
Max. discharge current	67.5A(5s)			
Floating design life @ 25°C (77°F)	5 years			
Capacity @ 25°C (77°F)	20Hour rate(0.23A/10.5V)	10Hour rate(0.41A/10.5V)	5Hour rate(0.73A/10.5V)	1Hour rate(2.70A/10.5V)
	4.5Ah	4.05Ah	3.65Ah	2.70Ah
Capacity affected by Temp(20 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	
	91%	82%	64%	
Charge method @ 25°C (77°F)	Cycle Use	14.5-14.9V (Max. charge current: 1.35A)		
	Float Use	13.6-13.8V		

### OUTER DIMENSION (mm)

### TERMINAL TYPE (mm)

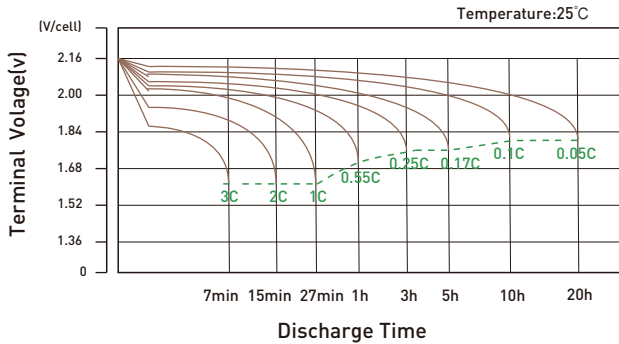


### CONSTANT CURRENT(AMP) AND CONSTANT POWER(WATT) DISCHARGE TABLE AT 25°C (77°F)

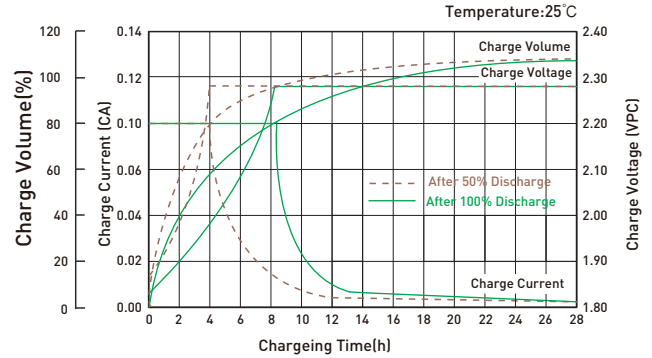
F.V / TIME		5min	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
9.60V	A	16.31	12.69	9.30	5.33	2.96	1.81	1.36	1.10	0.79	0.52	0.43	0.23
	W	172.86	134.82	99.48	57.54	32.27	19.77	15.00	12.14	8.68	5.79	4.75	2.58
10.20V	A	14.84	11.12	8.33	4.86	2.79	1.69	1.29	1.04	0.77	0.51	0.42	0.23
	W	161.72	123.38	92.82	54.68	31.39	19.11	14.54	11.85	8.79	5.82	4.75	2.58
10.50V	A	13.64	10.12	7.74	4.71	2.70	1.64	1.25	1.02	0.77	0.51	0.41	0.23
	W	150.01	113.85	87.46	53.74	30.78	18.76	14.27	11.70	8.80	5.82	4.76	2.59
10.80V	A	12.41	9.18	7.16	4.50	2.61	1.58	1.21	0.99	0.73	0.49	0.40	0.22
	W	136.56	104.70	81.92	51.97	30.15	18.23	14.04	11.48	8.52	5.74	4.70	2.56
11.10V	A	10.74	8.46	5.79	4.19	2.48	1.41	1.06	0.82	0.70	0.48	0.39	0.21
	W	121.32	97.76	67.18	49.00	28.96	16.45	12.43	9.73	8.25	5.66	4.65	2.52

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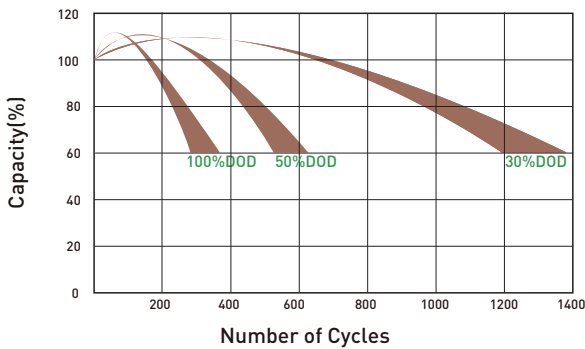
Discharge characteristic Curve



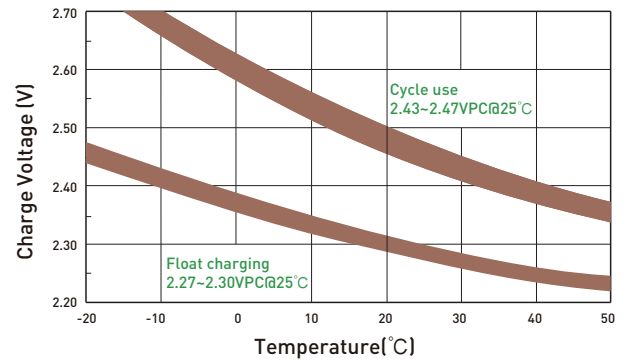
Charge Characteristic Curve For Standby Use



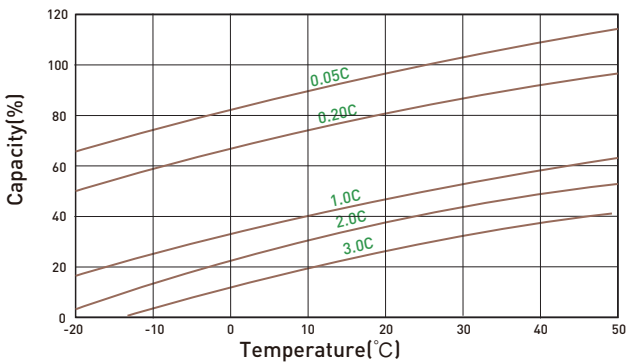
Cycle service life in relation to depth of discharge



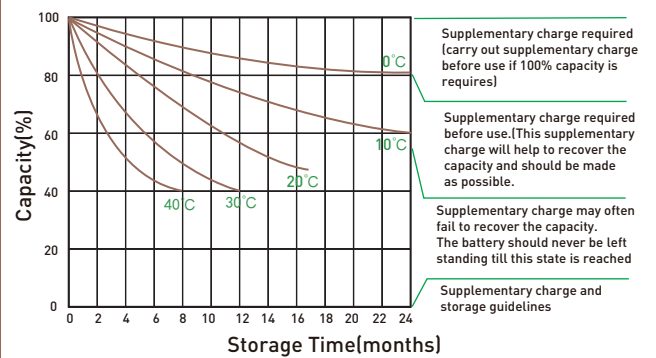
Relationship Between Charging Voltage And Temperature



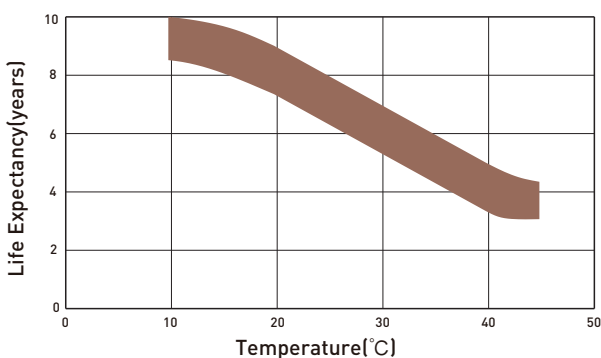
Temperature Effects On Capacity



Storage Characteristics



Effect Of emperature On Long Term Life



Charge Characteristic Curve For Standby Use

