

# AGM SERIES Battery Technical Data FM12-65(12V65AH)

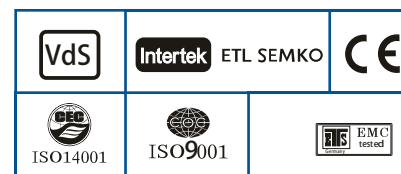
## Specification

Nominal Voltage	12V
Nominal Capacity(20HR)	65.0AH
Dimensions	Length 348±3mm (13.7 inches)
	Width 167±2mm (6.57 inches)
	Container Height 178±2mm (7.01 inches)
	Total Height (with Terminal) 178±2mm (7.01 inches)
Approx Weight	Approx 18.0KGS
Terminal	T6
Container Material	ABS
Rated Capacity	65.0 AH/3.25A (20hr, 1.80V/cell, 25°C/77°F)
	62.1 AH/6.21A (10hr, 1.80V/cell, 25°C/77°F)
	53.6 AH/10.72A (5hr, 1.75V/cell, 25°C/77°F)
	45.8 AH/15.3A (3hr, 1.75V/cell, 25°C/77°F)
	37.5 AH/37.5A (1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	780A (5s)
Internal Resistance	Approx 7.3mΩ
Operating Temp. Range	Discharge : -15~50°C (5~122°F)
	Charge : 0~40°C (32~104°F)
	Storage : -15~40°C (5~104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)
Cycle Use	Initial Charging Current less than 19.5A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C
Standby Use	No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C
Capacity affected by Temperature	40°C (104°F) 103%
	25°C (77°F) 100%
	0°C (32°F) 86%
Self Discharge	FM series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.



## Applications

- ◆ All purpose
- ◆ Uninterruptable Power Supply (UPS)
- ◆ Electric Power System (EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto control system



## Constant Current Discharge (Amperes) at 25°C (77°F)

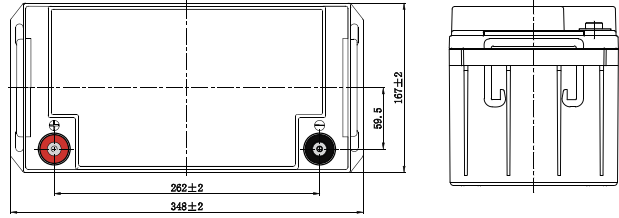
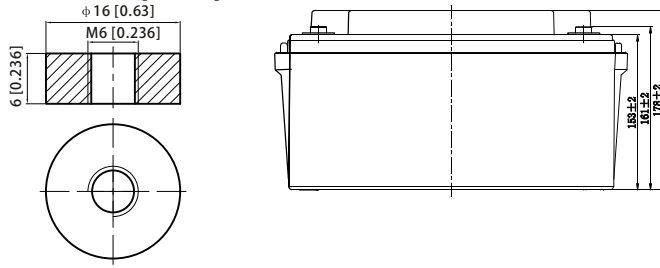
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	114.0	87.6	75.5	65.6	50.8	37.8	30.6	18.5	14.2	11.78	10.04	8.79	7.11	5.98	3.20
1.80V/cell	142.7	102.5	85.9	73.8	55.7	40.8	32.7	19.7	14.9	12.34	10.47	9.16	7.40	6.21	3.25
1.75V/cell	160.9	111.8	93.8	79.0	58.7	42.8	34.2	20.4	15.3	12.65	10.72	9.35	7.51	6.27	3.29
1.70V/cell	177.1	120.7	100.1	82.9	61.4	44.3	35.6	21.1	15.8	12.96	10.97	9.53	7.62	6.33	3.32
1.65V/cell	193.8	130.0	105.1	86.1	63.3	45.8	36.6	21.6	16.2	13.23	11.18	9.70	7.73	6.40	3.37
1.60V/cell	210.1	138.2	109.3	89.4	65.0	47.4	37.5	22.1	16.6	13.49	11.38	9.84	7.83	6.48	3.38

## Constant Power Discharge (Watts/cell) at 25°C (77°F)

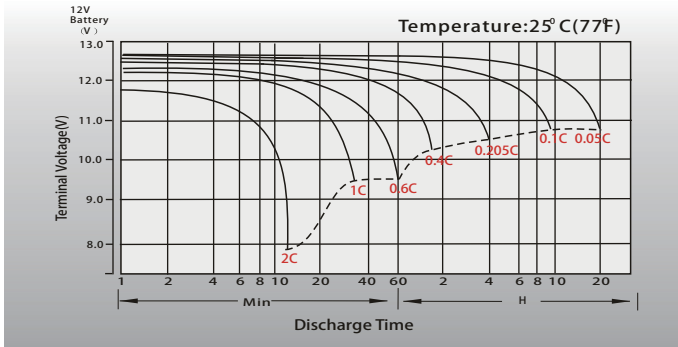
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	208.5	161.7	140.9	123.6	96.8	72.7	59.1	35.9	27.7	23.0	19.7	17.28	14.04	11.83	6.34
1.80V/cell	258.1	187.0	158.1	137.0	104.6	77.9	62.8	37.9	29.0	24.0	20.4	17.93	14.56	12.27	6.43
1.75V/cell	284.8	200.8	170.5	145.3	109.3	80.9	65.3	39.3	29.6	24.5	20.9	18.24	14.74	12.38	6.50
1.70V/cell	304.9	211.9	179.5	151.4	113.6	83.4	67.7	40.4	30.4	25.1	21.3	18.58	14.94	12.49	6.56
1.65V/cell	328.8	226.2	186.9	156.0	116.3	85.4	69.1	41.2	31.1	25.5	21.6	18.84	15.13	12.61	6.64
1.60V/cell	348.4	235.0	191.2	160.3	118.4	87.9	70.5	41.9	31.6	25.9	21.9	19.07	15.30	12.74	6.66

## Dimensions

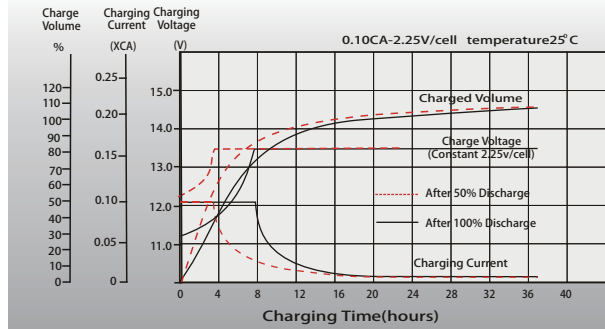
### T6 Terminal Unit: mm [inches]



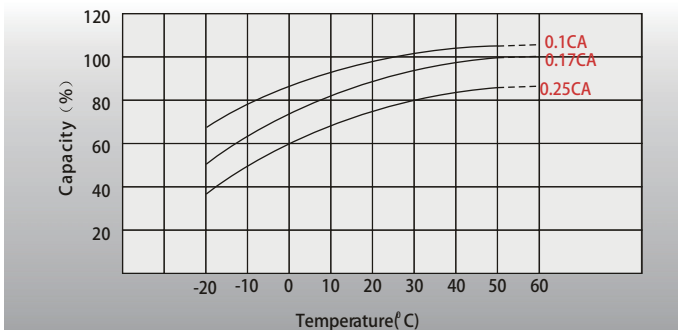
## Discharge Characteristics



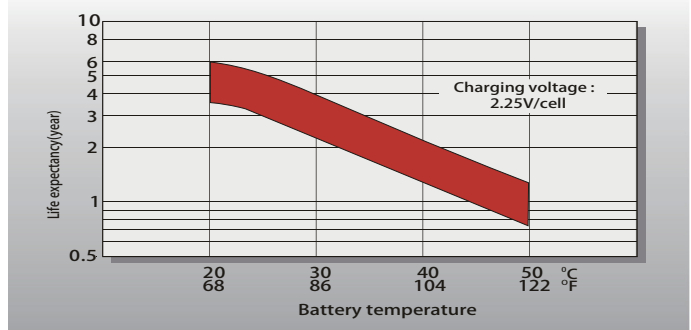
## Float Charging Characteristics



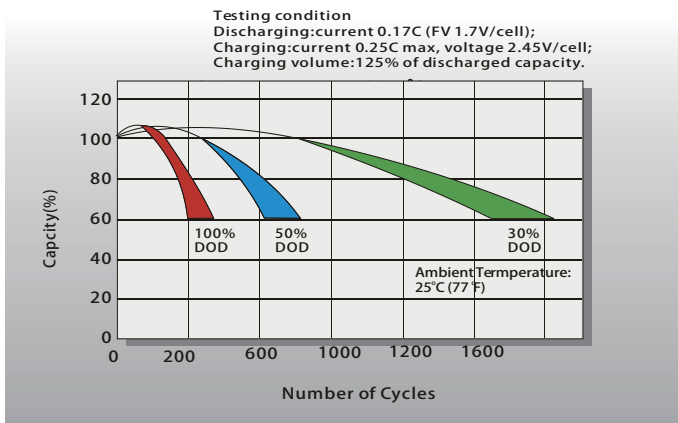
## Temperature Effects in Relation to Battery Capacity



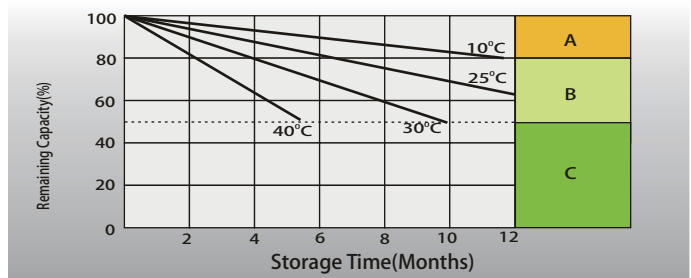
## Effect of Temperature on Long Term Float Life



## Cycle Life in Relation to Depth of Discharge



## Self Discharge Characteristics



- A** No supplementary charge required  
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:  
1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.  
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.  
3. Charged for 8~10 hours at limited current 0.05CA.
- C** Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is recharged.