



## 3-FM-7Ah Valve-regulated Lead Acid Battery Specification

We are an ISO9001 certified organization. And the products are approved by CE&UL. The nominal voltage of this series is 12V. And the capacity ranges from 1.2Ah to 24Ah. Their typical applications include: Emergency lighting systems, Electricity power supply systems, Communication systems, UPS systems, Starting systems, Solar systems etc.

### Battery Construction

Component	-----	Material
Positive Plate	-----	Lead Dioxide
Negative Plate	-----	Lead
Container	-----	ABS
Cover	-----	ABS
Safety Valve	-----	Rubber
Terminal	-----	Copper
Separator	-----	AGM glass
Electrolyte	-----	Sulfuric Acid

### General Features

Maintenance free  
Convenient for installation  
Safety and no leakage  
Excellent recharge and discharge performance  
Low self-discharge rate, charge each standby 6 months, temperature 25°C  
Adapt to high or low temperature  
Good deep discharge performance  
Longer cycle life  
UL approval

### Performance Characteristics

#### 1. Dimension and Weight

Length	-----	151mm
Width	-----	35mm
Height	-----	94mm
Total Height	-----	98mm
Reference Weight	-----	1.15kg

#### 2. Functional Parameter

Rated Voltage	-----	6V
Numbers of cells	-----	3 Cells
Designed Life	-----	3~5 Years

#### 3. Rated Capacity at 25°C(77°F)

20 hours rate (0.1C, 10.8V)	-----	7Ah
5 hours rate (0.25C, 10.8V)	-----	5.8Ah
1 hours rate (0.55C, 10.5V)	-----	4.1Ah

#### 4. Capacity Affected by Temperature(10 hours rate)

40 °C (104 °F)	-----	103%
25 °C (77 °F)	-----	100%
0 °C (32 °F)	-----	85%
-15°C (5 °F)	-----	65%

#### 5. Charge Method: Constant-Voltage Charging at 25°C(77°F)

Cyclic Use	-----	7.2~7.45V
Maximum Charging Current	-----	2.1A
Temperature Compensation	-----	-15mV/°C
Float Use	-----	6.8~6.9V
Temperature Compensation	-----	-10mV/°C

#### 6. Environment Temperature Requirements

Discharge Temperature	-----	-15~50°C
Charge Temperature	-----	0~40°C
Storage Temperature	-----	-15~40°C

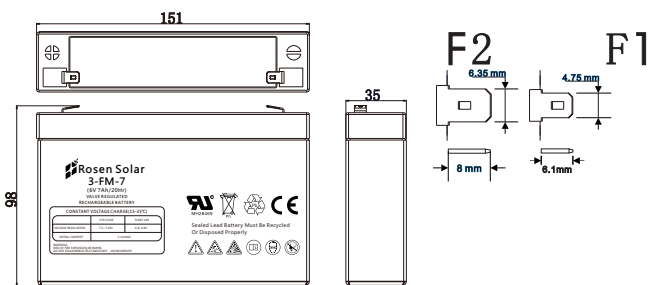
#### 7. Inner Resistance & Max. Discharge Current

A fully charge battery at 25°C(77°F)	-----	15mΩ
Max. Discharge Current	-----	105A(5S)
Short Circuit Current	-----	350A

#### 8. Self-discharge

3% of the capacity per month at 25°C(77°F)		
Capacity after 3 month storage	-----	91%
Capacity after 6 month storage	-----	82%
Capacity after 12 month storage	-----	64%

### Dimensions(mm)



### 3D Model Review



### Constant-Current Discharge Parameter Unit: A(25°C)

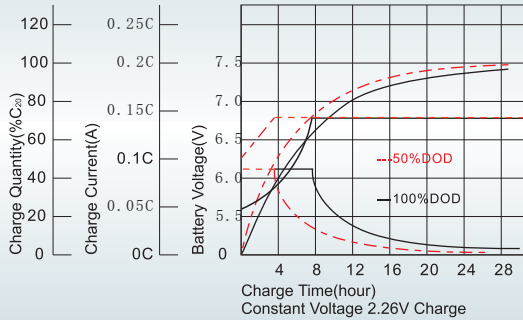
F.V/Time	5min	10min	15min	20min	30min	45min	1h	3h	5h	10h	20h
1.80V/Cell	17.90	13.10	10.20	8.67	6.69	4.86	3.94	1.75	1.16	0.65	0.350
1.75V/Cell	20.20	14.40	11.20	9.32	6.94	5.04	4.13	1.79	1.19	0.67	0.354
1.70V/Cell	22.20	15.70	11.90	9.80	7.23	5.24	4.26	1.83	1.22	0.68	0.360
1.65V/Cell	24.50	16.90	12.70	10.40	7.63	5.37	4.35	1.91	1.25	0.70	0.365
1.60V/Cell	27.00	18.40	13.60	11.10	8.05	5.60	4.40	1.97	1.30	0.70	0.367

### Constant-Power Discharge Parameter Unit: W(25°C)

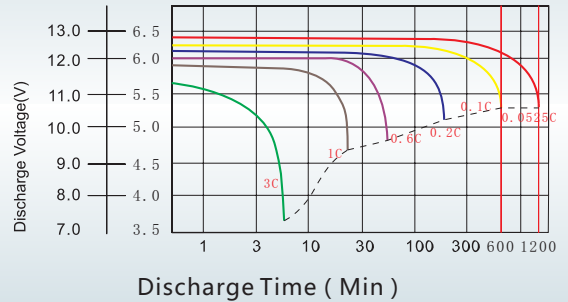
F.V/Time	5min	10min	15min	20min	30min	45min	1h	3h	5h	10h	20h
1.80V/Cell	32.40	23.90	18.90	16.10	12.60	9.26	7.57	3.40	2.26	1.29	0.692
1.75V/Cell	35.70	25.80	20.30	17.20	12.90	9.52	7.88	3.45	2.31	1.32	0.698
1.70V/Cell	38.20	27.50	21.40	17.90	13.40	9.86	8.10	3.54	2.37	1.35	0.710
1.65V/Cell	41.60	29.40	22.60	18.90	14.00	10.00	8.23	3.67	2.43	1.37	0.719
1.60V/Cell	44.80	31.20	23.80	19.90	14.70	10.40	8.26	3.76	2.50	1.38	0.722

# 3-FM-7Ah Valve-regulated Lead Acid Battery Specification

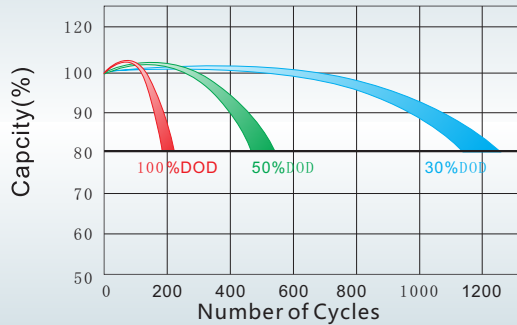
Charge Characteristics for Float Use @25°C/77°F



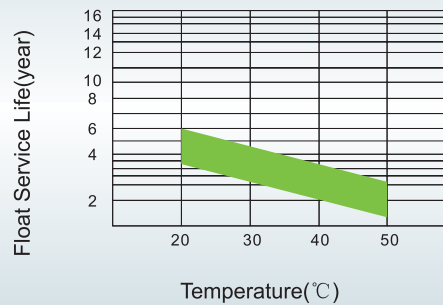
Discharge Characteristics at Various Rates @25°C/77°F



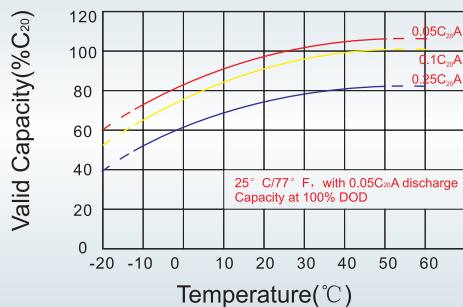
Cycle Life in Relation to Depth of Discharge



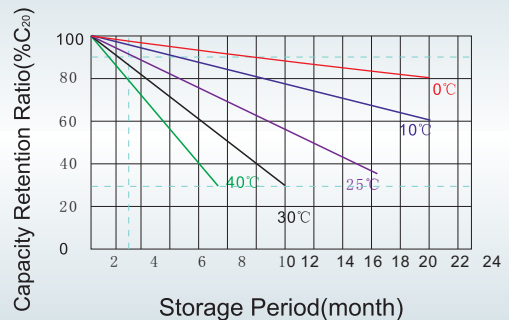
Float Service Life



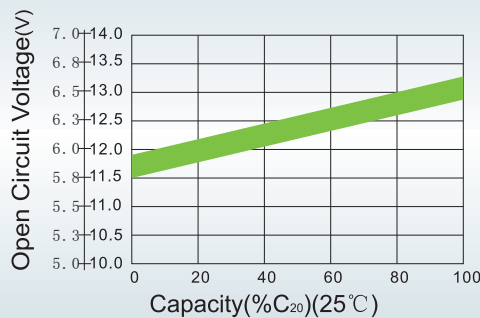
Temperature and Valid Capacity



Self Discharge Characteristics



Capacity and Open Circuit Voltage



Relationship between Charging Voltage and Temperature

