



## 3-FM-8Ah 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	-----	1.25kg

#### 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)	-----	8Ah
5 hours rate (0.25C, 10.8V)	-----	6.6Ah
1 hours rate (0.55C, 10.5V)	-----	4.7Ah

#### 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	-----	2.4A
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

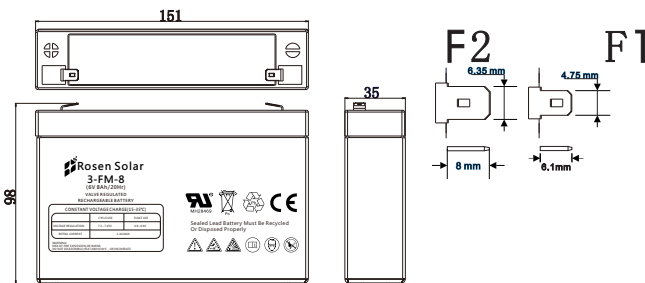
#### 7. Inner Resistance & Max. Discharge Current

A fully charge battery at 25°C(77°F)	-----	14mΩ
Max. Discharge Current	-----	120A(5S)
Short Circuit Current	-----	400A

#### 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)

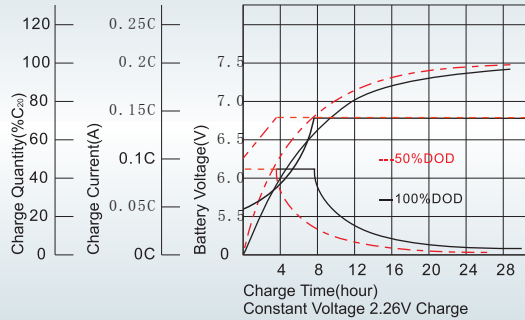
F.V/Time	5min	10min	15min	20min	30min	45min	1h	3h	5h	10h	20h
1.80V/Cell	20.48	14.93	11.73	9.92	7.65	5.55	4.50	2.01	1.32	0.74	0.400
1.75V/Cell	23.04	16.43	12.80	10.67	7.94	5.76	4.71	2.04	1.37	0.76	0.404
1.70V/Cell	25.39	17.92	13.65	11.20	8.26	5.99	4.86	2.10	1.40	0.78	0.412
1.65V/Cell	27.95	19.31	14.51	11.95	8.71	6.14	4.98	2.19	1.43	0.80	0.417
1.60V/Cell	30.93	21.01	15.57	12.69	9.21	6.40	5.02	2.25	1.48	0.80	0.419

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

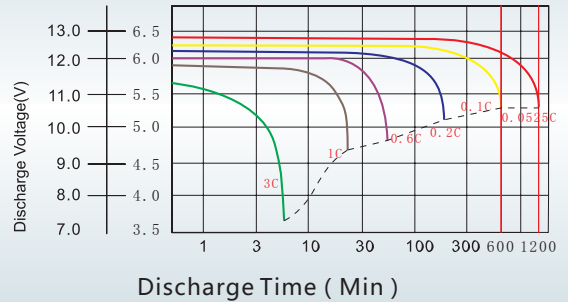
F.V/Time	5min	10min	15min	20min	30min	45min	1h	3h	5h	10h	20h
1.80V/Cell	37.01	27.31	21.55	18.35	14.40	10.59	8.65	3.88	2.58	1.47	0.791
1.75V/Cell	40.85	29.55	23.25	19.63	14.72	10.88	9.00	3.94	2.65	1.50	0.798
1.70V/Cell	43.73	31.47	24.53	20.48	15.25	11.31	9.26	4.04	2.71	1.54	0.812
1.65V/Cell	47.47	33.60	25.81	21.55	16.00	11.41	9.41	4.19	2.77	1.57	0.822
1.60V/Cell	51.20	35.63	27.20	22.72	16.75	11.84	9.44	4.30	2.86	1.58	0.826

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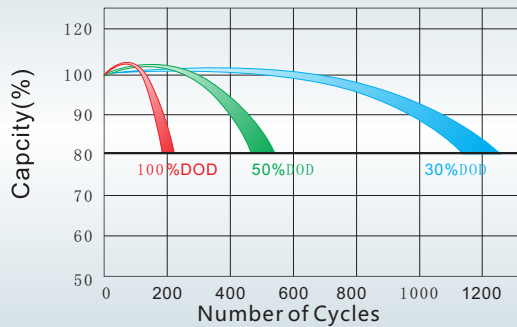
Charge Characteristics for Float Use @25°C/77°F



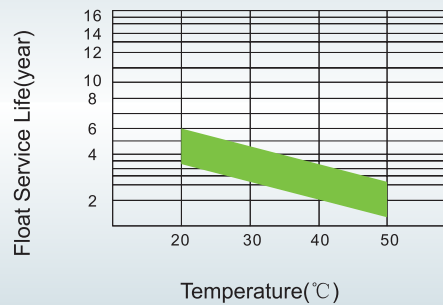
Discharge Characteristics at Various Rates @25°C/77°F



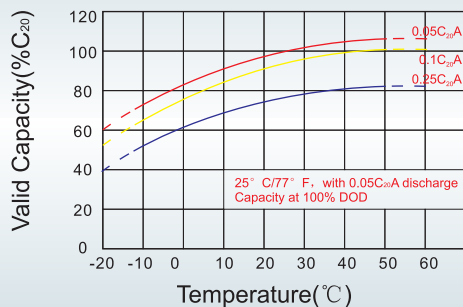
Cycle Life in Relation to Depth of Discharge



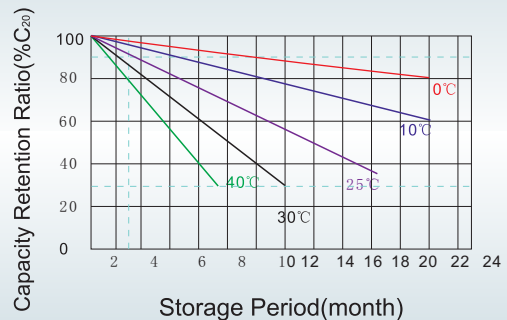
Float Service Life



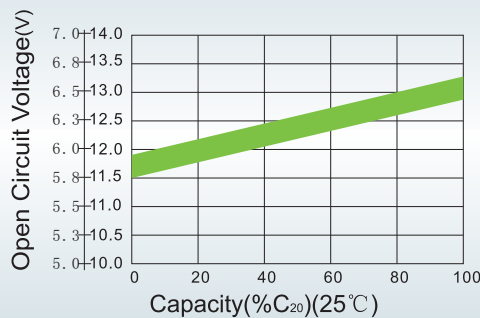
Temperature and Valid Capacity



Self Discharge Characteristics



Capacity and Open Circuit Voltage



Relationship between Charging Voltage and Temperature

