



**6FM7.2J 12V7.2AH/20HR**

**LONG WAY GEL Battery Series**

LONG WAY J Series batteries contain a mixture of sulfuric acid, fumed silica, pure water, and phosphoric acid, which forms a thixotropic GEL. The electrolyte is absorbed in AGM separator. There is no liquid in the battery to leak or require maintenance like flooded batteries. The J series battery has longer service life, better performance against overcharge and performance in higher ambient temperature.

**Application**

- Lighting system
- Security system
- Electric toy
- Medical equipment
- Telecommunication system
- Power systems
- UPS
- Electric tools

**General Features**

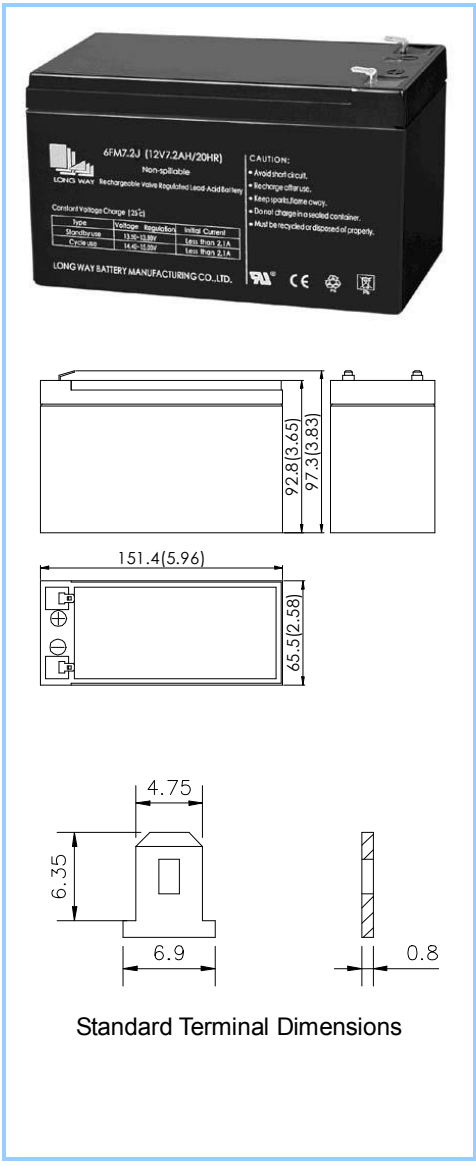
- Long service life
- Wider ambient temperature range
- Convenient for installation
- Flexible Orientation
- UL approval
- No leakage
- Better performance against overcharge
- Maintenance free
- Low self-discharge rate

**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 Specifications**

<b>Battery Model</b>	6FM7.2J (12V7.2 AH/20 HR)			
<b>Designed Service Life</b>	5 years			
<b>Capacity (25°C)</b>	20HR	10HR	5HR	1HR
	(0.36A)	(0.67A)	(1.22A)	(4.32A)
	7.2AH	6.7AH	6.12AH	4.32AH
<b>Dimension:</b>	Length	Width	Height	Total Height
	151.4(5.96)	65.5(2.58)	92.8(3.65)	97.3(3.83)
<b>Approx. Weight</b>	2.20kg (4.85 lbs) ± 5%			
<b>Internal Resistance</b>	Fully charged at 25°C: 0.026 Ohm			
<b>Self-discharge</b>	3% of capacity declined per month at 25°C			
<b>Capacity Affected by Temp. (20HR)</b>	40°C	25°C	0°C	-15°C
	105%	100%	85%	65%
<b>Charge Voltage (25°C)</b>	Cycle use		Stand-by use	
	14.4-15.0V(-24mV/°C), Max. Current: 2.16 A		13.5-13.8V (-18mV/°C)	



## Constant Current Discharge Data

### Constant Current Discharge Data Sheet (Amperes at 25°C)

End Voltage/cell	Minute (s)				Hour (s)				
	5	10	15	30	1	3	5	10	20
1.80	21.20	15.40	12.30	7.00	4.30	1.64	1.19	0.65	0.35
1.75	23.70	15.90	13.10	7.45	4.46	1.70	1.20	0.65	0.35
1.70	25.50	16.40	13.40	7.70	4.57	1.75	1.25	0.66	0.36
1.65	26.40	16.80	13.70	7.85	4.65	1.79	1.26	0.66	0.36
1.60	28.10	17.30	14.00	8.05	4.70	1.82	1.29	0.66	0.36

## Constant Power Discharge Data

### Constant Power Discharge Data Sheet (Watts at 25°C)

End Voltage/cell	Minute (s)					Hour (s)			
	5	10	15	30	45	1	2	3	5
1.80	41.00	30.30	24.50	14.00	11.00	8.55	4.83	3.25	2.12
1.75	46.50	31.40	26.00	14.80	11.40	8.86	4.90	3.38	2.17
1.70	50.00	32.50	26.70	15.30	11.70	9.12	4.95	3.50	2.20
1.65	51.60	33.30	27.40	15.60	11.90	9.28	5.00	3.56	2.23
1.60	53.30	34.00	27.90	16.00	12.00	9.37	5.05	3.60	2.25

## End Voltage

Discharge Rate	Discharge Current	End Voltage (V/cell)
20h	0.05C <sub>20</sub> A (I <sub>20</sub> )	1.75
10h	0.09C <sub>20</sub> A (I <sub>10</sub> )	1.75
3h	0.25C <sub>20</sub> A (I <sub>3</sub> )	1.75
1h	0.60C <sub>20</sub> A (I <sub>1</sub> )	1.60

## Storage Time VS Charge Time

Storage Time	Top up Charging Recommendation
Less than 6 months from production or previous top up charge	Maximum of 16 hours at a constant voltage of 2.40VPC
Less than 12 months from production or previous top up charge	Maximum of 20 hours at a constant voltage of 2.40VPC
Less than 6 months from production or previous top up charge	Maximum of 8 hours at a constant current of 0.1 C A
Less than 12 months from production or previous top up charge	Maximum of 10 hours at a constant current of 0.1 C A

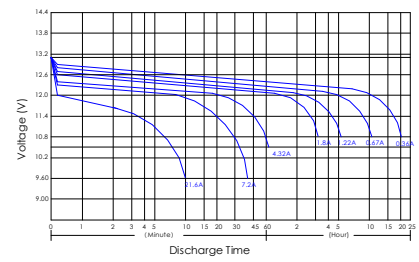
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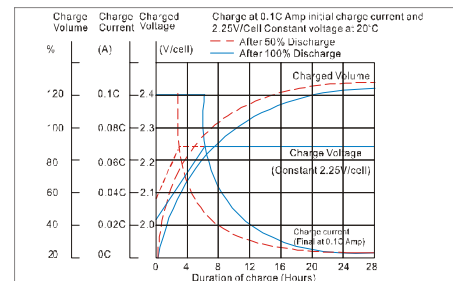
Website: <http://www.longwaybattery.com> Email: [sales@longwaybattery.com](mailto:sales@longwaybattery.com) LW-IOP-6FM7.2J.A2 April 2007

NOTE: This information is generally descriptive only and is not intended to make or imply any representation, guarantee or warranty with respect to any cells and batteries. Cell and battery designs/specifications are subject to modification without notice. Contact Long Way for the latest information.

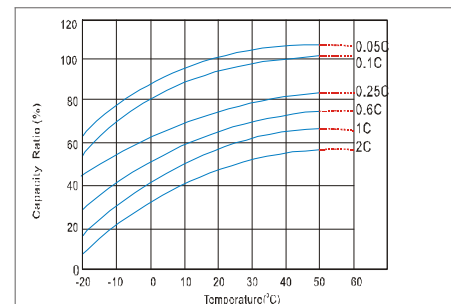
## Performance Curves and Charts



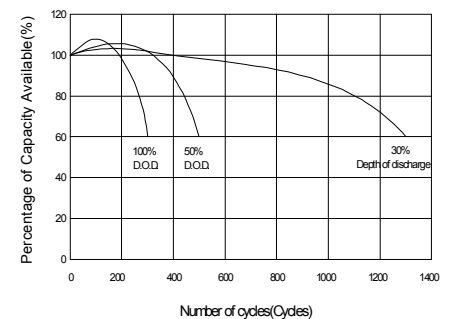
Discharge Characteristic (25°C)



Charge Characteristic (25°C)



Effect of temperature on capacity



Number of cycles Vs. Depth of Discharge

