



ZHONGSHAN LONGWAY BATTERY MANUFACTURING CO., LT
GENERAL BATTERY SERIES

3FM2.8 6V2.8AH/20HR

LONG WAY General Battery Series

GB series product is the general Valve Regulated Lead Acid battery with AGM technology. GB series batteries have are widely applied to energy reservation system, traction system, starting devices, emergence system and so on.

Application

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

General Features

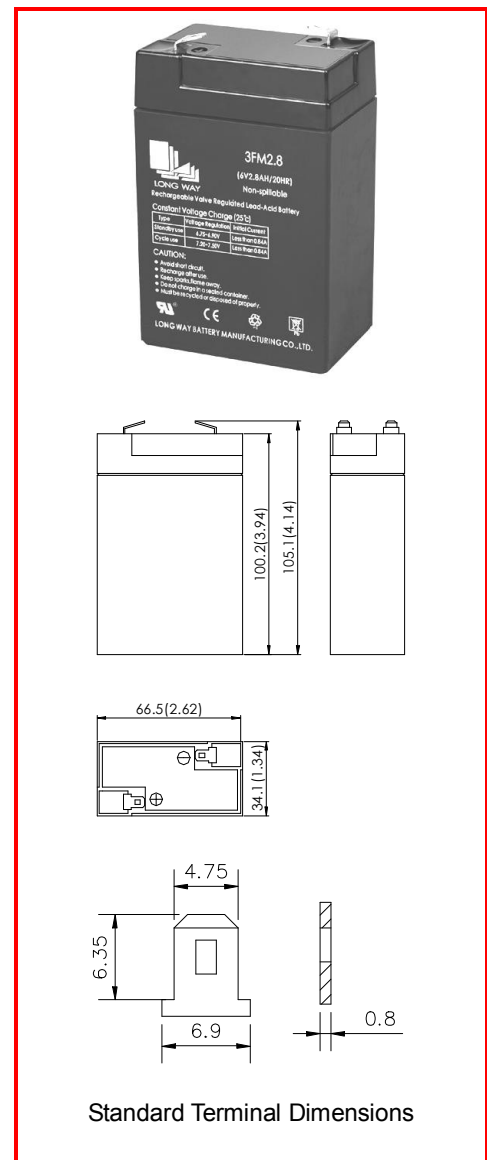
- Maintenance free
- Excellent recharge and discharge performance
- Convenient for installation
- Low self-discharge rate
- Safety and no leakage
- UL approval

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

Battery Model	3FM2.8 (6V2.8AH/20HR)			
Designed Service Life	5 years			
Capacity (25°C)	20HR	10HR	5HR	1HR
	(0.14A)	(0.26A)	(0.476A)	(1.68A)
	2.8AH	2.60AH	2.38AH	1.68AH
Dimension: mm (inch)	Length	Width	Height	Total Height
	66.5 (2.62)	34.1 (1.34)	100.2 (3.94)	105.1 (4.14)
Approx. Weight	0.57 Kg (1.26 lbs) ±5%			
Internal Resistance	Fully charged at 25°C: 0.021 Ohm			
Self-discharge	3% of capacity declined per month at 25°C			
Capacity Affected by Temp. (20HR)	40°C	25°C	0°C	-15°C
	105%	100%	85%	65%
Charge Voltage (25°C)	Cycle use		Stand-by use	
	7.20-7.50V(-12mV/°C), Max. Current: 0.84 A		6.75-6.90V (-9mV/°C)	



Standard Terminal Dimensions



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	8.21	5.77	4.56	2.65	1.58	0.64	0.43	0.25	0.14
1.75	8.80	6.13	4.83	2.80	1.65	0.67	0.45	0.26	0.14
1.70	9.39	6.50	5.10	2.94	1.73	0.70	0.46	0.27	0.14
1.65	9.95	6.85	5.35	3.07	1.80	0.73	0.48	0.27	0.14
1.60	10.50	7.20	5.60	3.20	1.87	0.75	0.49	0.28	0.15

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	15.60	10.80	8.33	4.87	3.42	3.01	1.84	1.32	0.89
1.75	16.80	11.60	8.92	5.19	3.63	3.18	1.92	1.37	0.91
1.70	18.10	12.40	9.51	5.51	3.84	3.35	2.00	1.41	0.93
1.65	19.40	13.20	10.10	5.83	4.04	3.51	2.07	1.45	0.95
1.60	20.70	14.00	10.70	6.13	4.23	3.67	2.13	1.48	0.97

End Voltage

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

Storage Time VS Charge Time

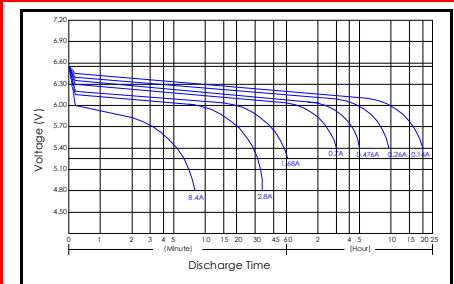
Storage Time	Top up Charging Recommendation
Less than 6 months from production or previous top up charge	Maximum of 16 hours at a constant voltage of 2.40VPC
Less than 12 months from production or previous top up charge	Maximum of 20 hours at a constant voltage of 2.40VPC
Less than 6 months from production 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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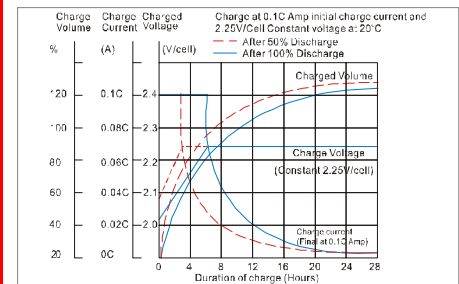
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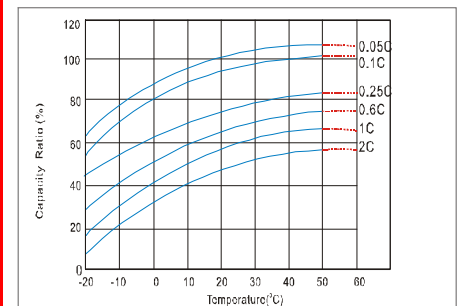
Performance Curves and Charts



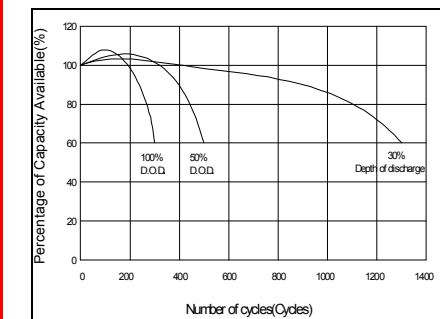
Discharge Characteristic (25°C)



Charge Characteristic (25°C)



Effect of temperature on capacity



Number of cycles Vs. Depth of Discharge

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.

