



Shenzhen Matrix Battery Co.,Ltd.
 Manufacturer of sealed lead acid battery

NP7-12 (12V7AH)

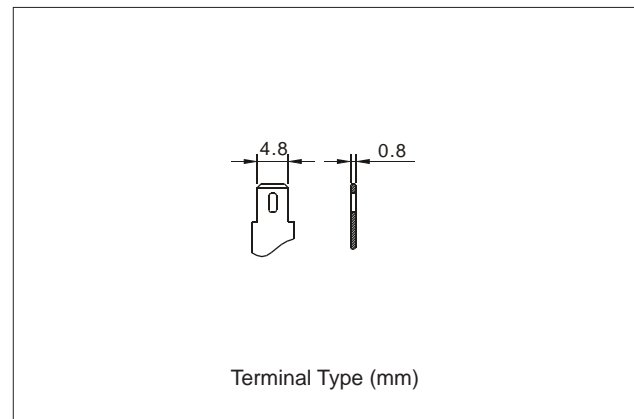
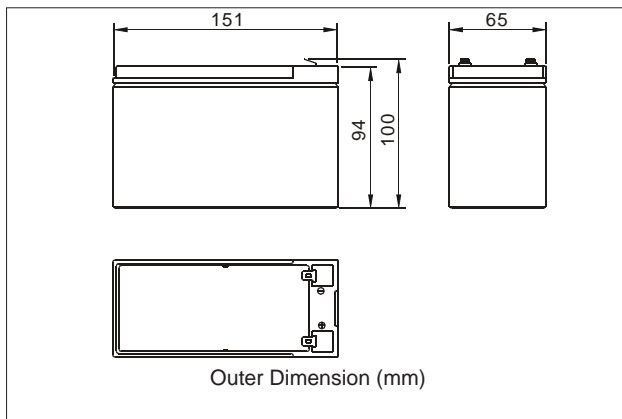
- Sealed Lead-acid Battery
- Valve Regulated Lead Acid Battery



- APPLICATIONS**
- Emergency lighting equipment
 - Fire alarm and security systems
 - Uninterruptible power supply
 - Telecommunication equipment
 - Electric equipment and telemeter equipment
 - Lighting equipment
 - Wireless lawn mowers, vacuum cleaner and washing machine
 - Toys and consumer electronics
 - Portable video camera
 - Portable personal computer

The Matrix Sealed Lead Acid Battery (SLA battery) is an advanced and economic rechargeable battery. It has several properties that differ from other types of batteries:

1. Maintenance Free - As it is valve-regulated, sealed and glass-mat is utilized, acid is trapped inside. So, refilling is not needed and is leakproof.
2. High Power-To-Weight Ratio - Matrix SLA batteries can provide much power in comparison to its weight.
3. No Memory Effect - Some batteries, say nickel-cadmium batteries, will become conditioned to provide less power after repetitive short usage/discharge.
4. Low Self discharge - The self-discharge rate for Matrix SLA battery is about 2-3% per month at room temperature compared with 20-30% for other common battery systems.
5. Long Service Life - Utilized thick and massive calcium grids ensure that Matrix SLA battery has a long service life.
6. High Discharge Rate - Since the internal resistance is low, the battery can provide a high rate of discharge.



Nominal Voltage	12V	
Capacity (20 hr 25°C)	7Ah	
Design Life	3-5 Years	
Dimensions	Length	151mm (5.94 inch)
	Width	65mm (2.56 inch)
	Height	94 mm (3.70 inch)
	Total Height	100mm (3.94 inch)
Approx. Weight	2.05Kg	
Capacity 25°C (77°F)	20 hr rate	7Ah
	10 hr rate	6.51Ah
	5 hr rate	5.95Ah
	1 hr rate	4.20Ah
Internal Resistance (Full charged Battery at 25°C (77°F))	25mΩ	

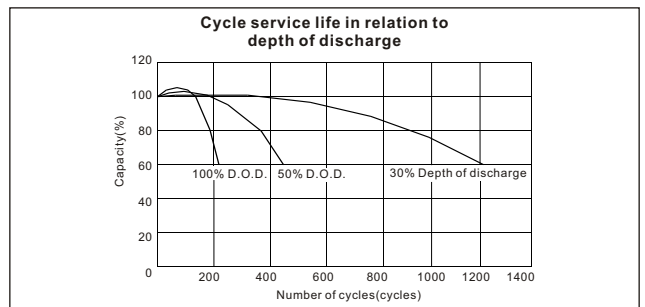
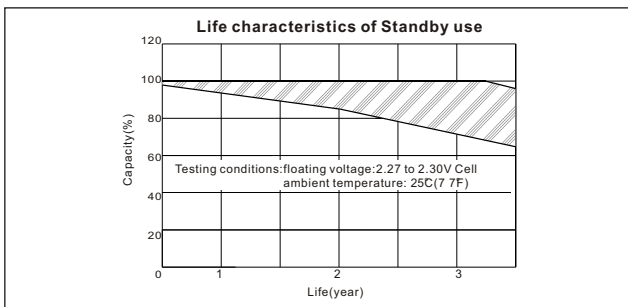
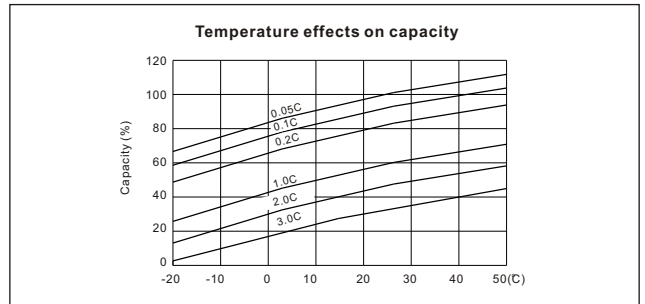
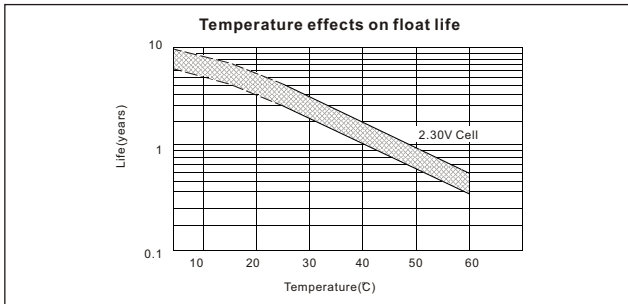
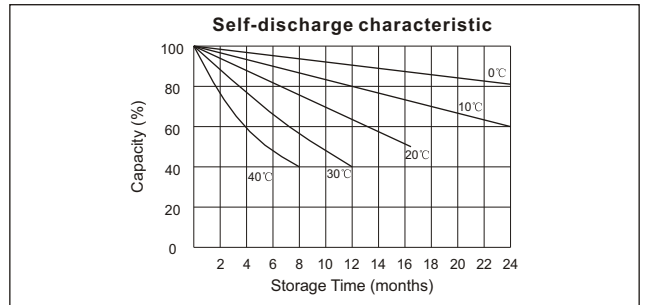
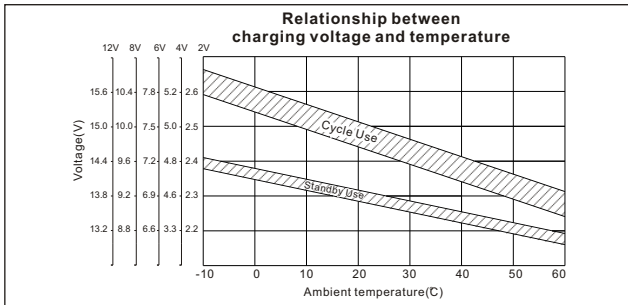
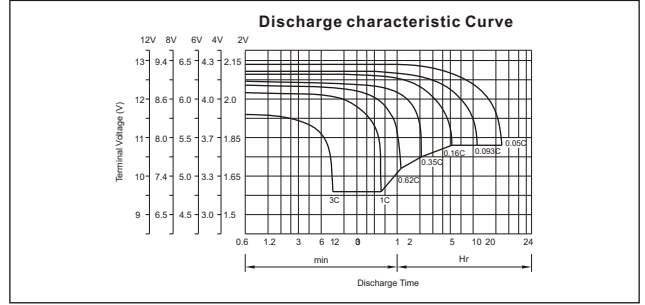
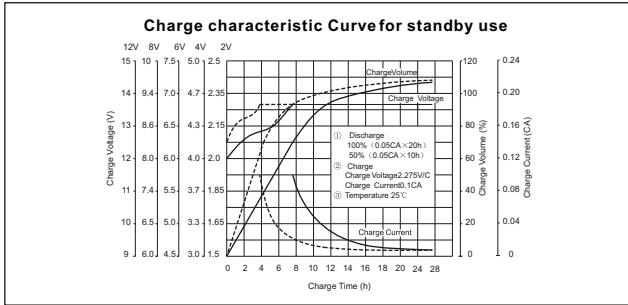
Capacity affected by Temperature (20hr)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-Discharge at 25°C	3 month	Remaining capacity: 91%
	6 month	Remaining capacity: 82%
	12 month	Remaining capacity: 65%
Normal operating temperature	25°C ±3°C (77°F ±5°F)	
Operating temperature range	-15°C ~50°C (5~122°F)	
Float charging voltage (25°C)	13.6 to 13.8V	
Cyclic charging voltage (25°C)	14.5 to 14.9V	
Maximum charging current	2.80A	
Terminal material	Copper	
Maximum Discharge current	105A (5sec)	



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F.V/Time	Constant Current Discharge Characteristics(Amperes,25°C)								Constant Power Discharge Characteristics(Watts,25°C)							
	5min	10min	30min	1h	3h	5h	10h	20h	5min	10min	30min	1h	3h	5h	10h	20h
10.80V	17.56	16.68	7.70	4.38	1.87	1.23	0.70	0.35	222.0	147.00	62.42	37.80	19.95	13.18	7.42	4.26
10.50V	19.60	17.50	7.88	4.49	1.87	1.23	0.70	0.35	239.4	158.08	66.62	39.90	20.53	13.65	7.58	4.29
10.20V	22.40	17.73	8.11	4.61	1.93	1.28	0.70	0.35	257.7	169.17	70.93	42.00	21.00	14.23	7.65	4.32
9.60V	24.56	18.67	8.46	4.78	1.93	1.28	0.70	0.35	294.0	191.57	78.75	46.20	22.05	14.70	7.65	4.38