



## VRLA Rechargeable Battery

# SH7-12



### FEATURES

- Maintenance free(no water topping-up required)
- No free acid(Non-spillable battery)
- Can be used in any orientation(excluding used inverted)
- The battery is designed for high rate usage
- Its design life is up to 6 years in floating application
- Absorbent Glass Mat technology for efficient gas recombination

### APPLICATIONS

- UPS
- Toy-Cars
- Laboratory Equipment
- Power Packs
- Fishing Lights

### SPECIFICATIONS

Nominal Voltage	12V	
Nominal Capacity	20 Hour Rate (315mA, 10.5V)	6.30 Ah
	10 Hour Rate (600mA, 10.5V)	6.00 Ah
	15 Min Rate (168W, 7.8V)	3.50 Ah
	3 C Rate (21000mA, 7.8V)	2.80 Ah
Approx. Weight	2220g(4.89lbs.)	
Terminals	T2 (Faston Tab 250) T1 is optional	
Max. Discharge Current	99 A (5 sec.)	
Max. Charge Current	2.1 A	
Operating Temperature Range	Charge	0°C~40°C(32°F~104°F)
	Discharge	-20°C~50°C(-4°F~122°F)
	Storage	-20°C~40°C(-4°F~104°F)
Self Discharge	< 3% per month (25°C)	
Internal Resistance	≤22mΩ (Fully Charged)	



### CONTAINER MATERIAL

- Standard:ABS( UL94 HB)  
Model Name: SH7-12
- Optional: Flame Retardant ABS (UL94 V-0)  
Model Name: SH7-12FR

Certificate as below:



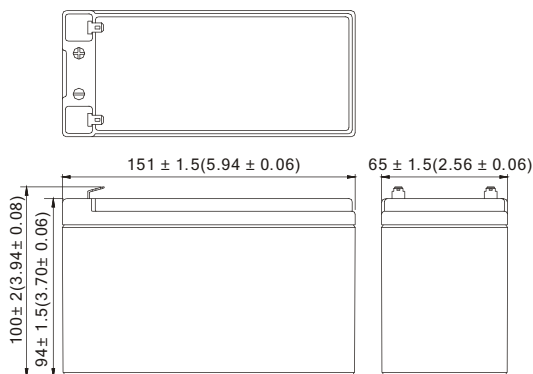
MH19884

Compliance of the standards as below:

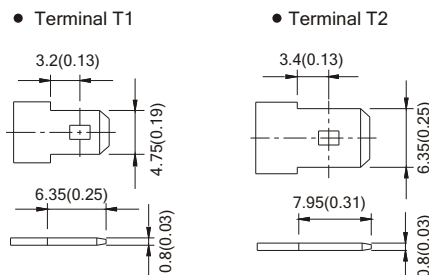
- IEC 61056-1
- JIS C 8702-1
- GB/T 19639.1

### OUTER DIMENSIONS mm(inch)

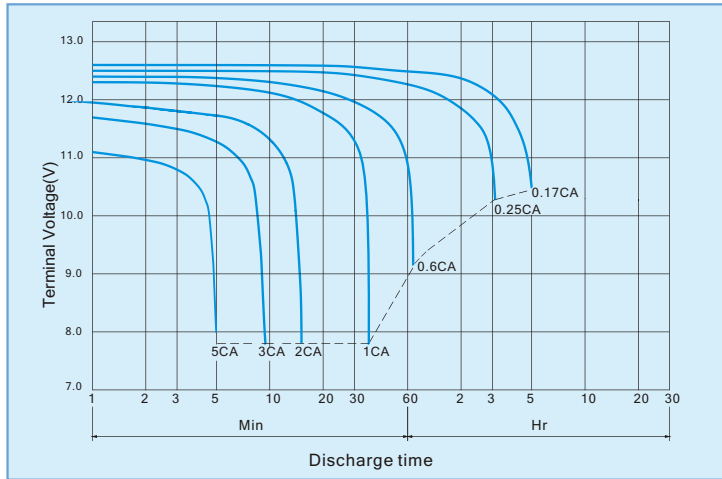
Length (L)	Width (W)	Container Height (H)	Total Height (TH)
151±1.5(5.94±0.06)	65±1.5(2.56±0.06)	94±1.5(3.70±0.06)	100±2.0(3.94±0.08)



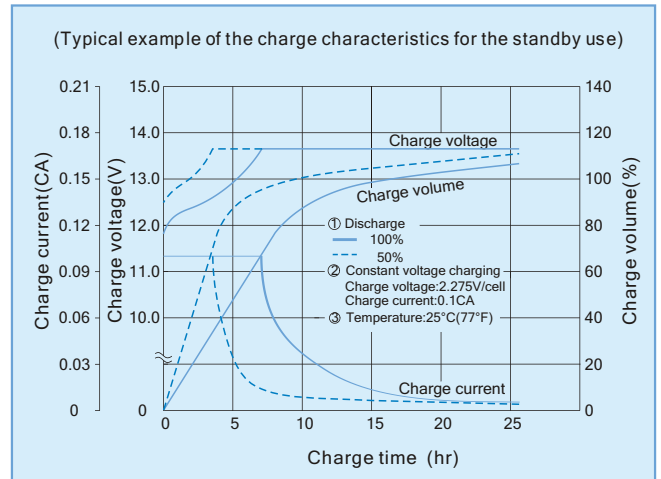
### TERMINAL TYPE



### SH7-12 (SH7-12FR) discharge characteristics (25°C/77°F)



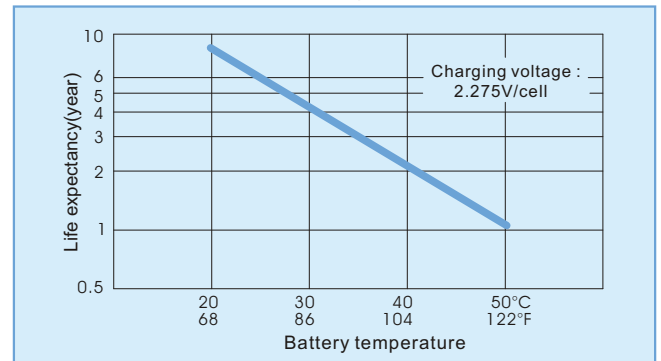
### Battery Charging Characteristics



### Charging Procedure

Application	Charging method	Charging Voltage at 25°C (V/cell)	Temperature compensation coefficient of charging voltage (mV/°C/cell)	Max. charging current (CA)	Charging time 0.1CA, 25°C (h)		Temp (°C)
					100% discharge	50% discharge	
For standby power Source	Constant voltage & Constant current charging (with current restriction)	2.25~2.30	-3	0.3	24	20	0~40 (32~104°F)
For cycle service		2.40~2.50	-4	0.3	16	10	

### Effect Of Temperature On Long Term Float Life



### Constant power discharge characteristics at 25 °C/77 °F Unit: W

F.V. (V/cell) \ Discharge Time	5 Min	10 Min	15 Min	30 Min	1 Hr	3 Hr	5 Hr	10 Hr	20 Hr
1.80V	274.5	196.5	150.0	87.4	49.8	18.8	12.8	7.08	3.72
1.70V	301.0	206.0	152.5	88.8	50.3	19.0	13.0	7.24	3.80
1.60V	316.5	210.5	157.1	89.8	50.7	19.2	13.1	7.34	3.85
1.50V	324.0	212.0	160.0	90.3	51.2	19.3	13.1	7.40	3.88
1.40V	337.0	213.0	163.2	90.7	51.5	19.4	13.2	7.42	3.89
1.30V	341.0	215.0	168.0	90.8	51.7	19.5	13.2	7.43	3.89

### Constant current discharge characteristics at 25 °C/77 °F Unit: A

F.V. (V/cell) \ Discharge Time	5 Min	10 Min	15 Min	30 Min	1 Hr	3 Hr	5 Hr	10 Hr	20 Hr
1.80V	24.73	17.30	13.04	7.41	4.18	1.57	1.07	0.589	0.309
1.70V	27.70	18.13	13.53	7.53	4.23	1.58	1.08	0.600	0.315
1.60V	29.50	18.53	13.82	7.61	4.26	1.60	1.09	0.610	0.320
1.50V	30.60	18.66	14.05	7.65	4.30	1.61	1.09	0.615	0.322
1.40V	30.92	18.75	14.22	7.69	4.33	1.62	1.10	0.618	0.323
1.30V	31.28	18.93	14.28	7.69	4.34	1.63	1.10	0.619	0.323

All data and artworks shall be changed without prior notice, BB reserves the right to explain and update the information contained hereinto.

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