

## VRLA Rechargeable Battery

# HR15-12 (HR15-12FR)

### 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
- The power density at 5 min~15min discharging rate is 30% higher than BP series

### APPLICATION

- UPS
- Fishing Lights
- Power Packs

### SPECIFICATIONS

Nominal Voltage	12V	
Nominal Capacity	10 Hour Rate (1300mA, 10.5V)	13.0 Ah
	15 Min Rate (360W, 7.8V)	7.5 Ah
Approx. Weight	4200g(9.25lbs.)	
Terminals	T2 (Faston Tab 250) T1 is optional	
Max. Discharge Current	180 A (5 sec.)	
Max. Charge Current	3.9 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	≤12mΩ (Fully Charged)	



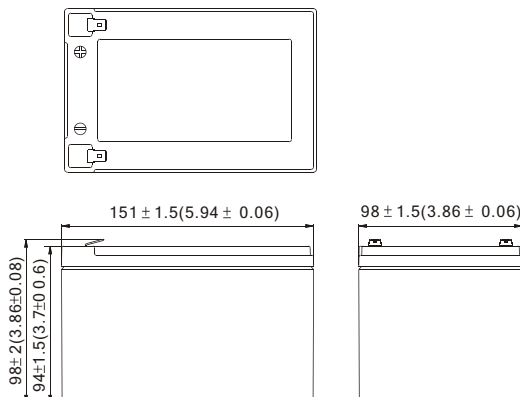
### CONTAINER MATERIAL

- HR15-12:  
ABS: UL 94-HB (Dark gray color)
- HR15-12FR:  
ABS: UL 94-V0 (Light gray color)

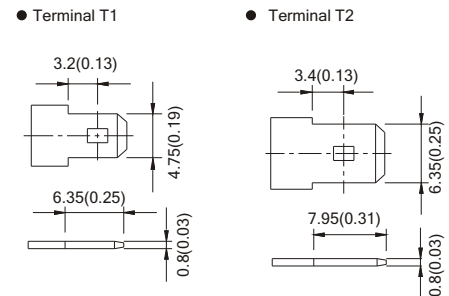
 ISO 9001	 ISO 14001
 UL	 CE
• IEC 61056-1	• JIS C 8702-1
• GB/T 19639.1	

### OUTER DIMENSIONS mm(inch)

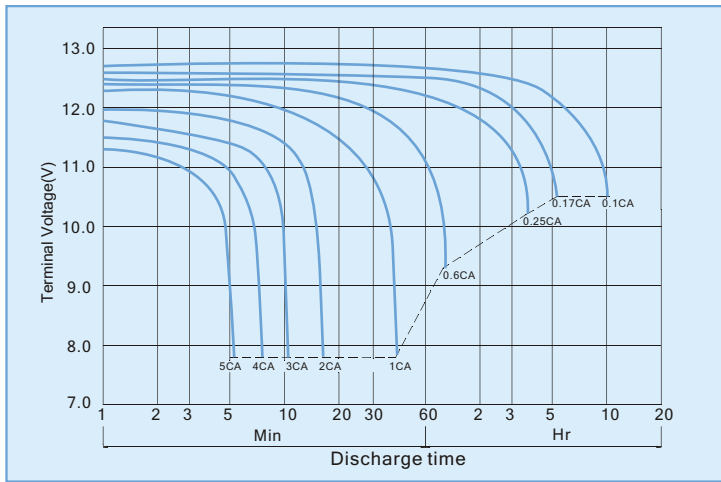
Length (L)	Width (W)	Container Height (H)	Total Height (TH)
151±1.5(5.94±0.06)	98±1.5(3.86±0.06)	94±1.5(3.70±0.06)	98±2.0(3.86±0.08)



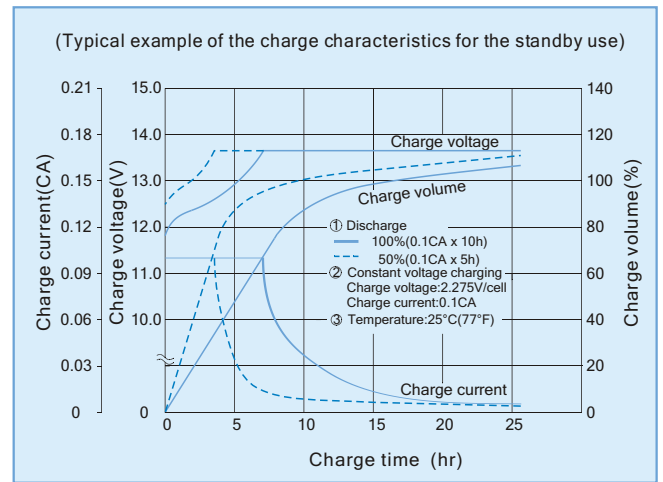
### TERMINAL TYPE



### HR15-12 (HR15-12FR) discharge characteristics (25°C /77°F)



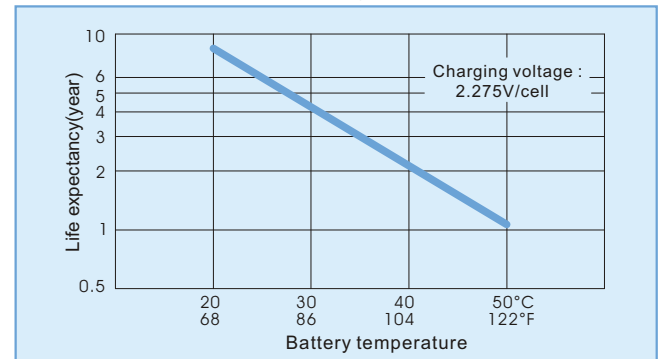
### Battery Charging Characteristics



### 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	20 Min	30 Min	40 Min	50 Min	60 Min	120 Min
1.80V	615.0	420.0	304.1	259.5	197.3	150.0	125.3	110.3	60.8
1.70V	735.0	468.8	330.8	274.9	205.5	155.6	129.4	112.9	62.0
1.60V	787.5	493.1	345.8	285.0	210.0	159.4	132.0	114.8	63.0
1.50V	810.0	502.5	353.3	289.5	212.6	161.3	133.5	115.9	63.3
1.40V	825.0	509.3	357.4	292.1	214.1	162.4	134.6	116.6	63.5
1.30V	832.5	513.8	360.0	294.0	215.3	163.1	135.4	117.0	63.7

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

F.V. (V/cell) \ Discharge Time	5 Min	10 Min	15 Min	20 Min	30 Min	40 Min	50 Min	60 Min	120 Min
1.80V	54.91	36.84	26.31	22.26	16.72	12.62	10.49	9.19	5.07
1.70V	66.82	41.12	28.62	23.58	17.42	13.09	10.83	9.41	5.17
1.60V	71.59	43.25	29.91	24.44	17.80	13.41	11.05	9.57	5.25
1.50V	73.64	44.08	30.56	24.83	18.02	13.57	11.17	9.66	5.28
1.40V	75.00	44.68	30.92	25.05	18.14	13.66	11.26	9.72	5.29
1.30V	75.68	45.07	31.14	25.21	18.25	13.72	11.33	9.75	5.31

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

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