



## VRLA Rechargeable Battery

# HRC6-12-1 (HRC6-12-1FR)

### 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 5 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
- Laboratory Equipment
- Toy-Cars
- Fishing Lights
- Power Packs



### SPECIFICATIONS

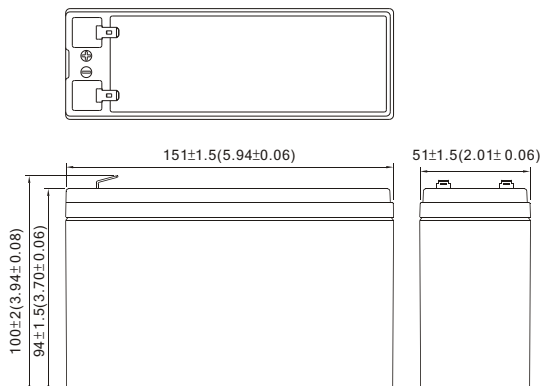
Nominal Voltage	12V	
Nominal Capacity	10 Hour Rate (600mA, 10.5V)	6.0 Ah
	5 Min Rate (240W, 9.6V)	1.8 Ah
Approx. Weight	1660g(3.66lbs.)	
Terminals	T2 (Faston Tab 250) , T1 and B0 are optional	
Max. Discharge Current	150 A (5 sec.)	
Max. Charge Current	1.8 A	
Operating Temperature Range	Charge	0°C~40°C(32°F~104°F)
	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	≤28mΩ (Fully Charged )	

### CONTAINER MATERIAL

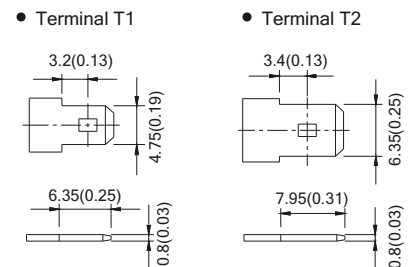
- HRC6-12-1:  
ABS: 94-HB (Dark gray color)
- HRC6-12-1FR:  
ABS: 94-V0 (Light gray color)

MH19884	C4M20310-2474-E-16
UL	CE
● IEC 61056-1	● JIS C 8702-1
● GB/T 19639.1	

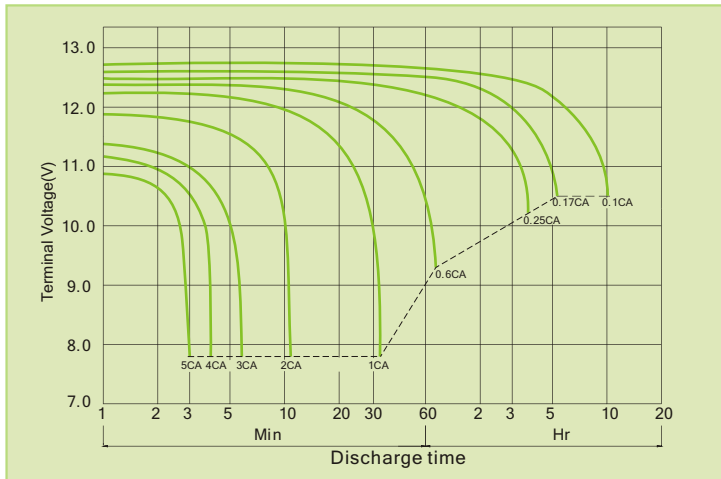
OUTER DIMENSIONS mm(inch)	Length (L)	Width (W)	Container Height (H)	Total Height (TH)
		151±1.5(5.94±0.06)	51±1.5(2.01±0.06)	94±1.5(3.70±0.06)



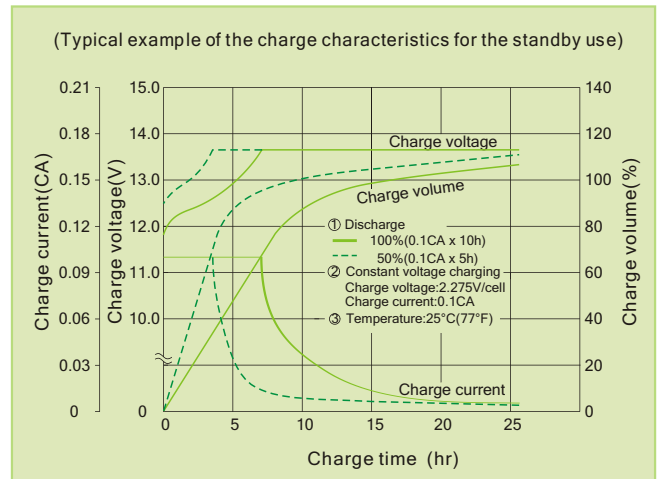
### TERMINAL TYPE



### HRC6-12-1 (HRC6-12-1FR) discharge characteristics (25°C/77°F)



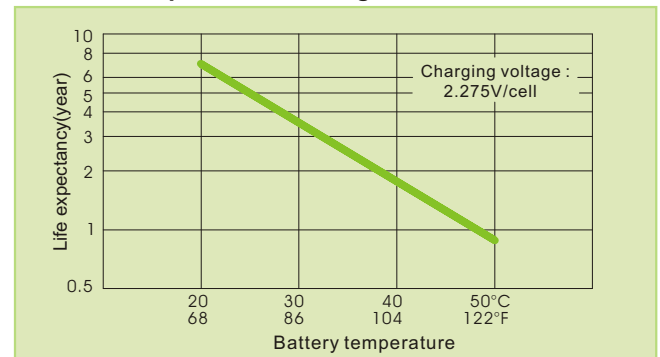
### Battery Charging Characteristics



### 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

Discharge Time F.V. (V/cell)	2 Min	3 Min	4 Min	5 Min	10 Min	15 Min	20 Min	30 Min	40 Min	50 Min	60 Min	120 Min
	1.85V	276.1	239.5	206.8	180.3	132.3	100.3	82.7	63.2	48.1	42.3	38.6
1.80V	305.0	263.1	225.8	198.9	140.0	105.5	86.5	65.8	50.0	43.9	40.0	21.90
1.75V	346.0	279.5	239.4	213.5	150.9	111.4	89.0	67.1	51.0	44.7	40.5	22.19
1.70V	363.7	299.4	257.0	237.7	156.3	114.8	91.6	68.5	51.9	45.3	40.9	22.32
1.67V	381.5	312.9	268.8	248.6	160.7	117.4	93.0	68.8	52.1	45.5	41.1	22.49
1.65V	385.9	316.4	271.7	251.0	162.0	118.3	93.6	69.2	52.4	45.7	41.2	22.59
1.60V	389.7	320.8	275.5	254.6	164.4	120.0	95.0	70.0	53.1	46.2	41.6	22.68

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

Discharge Time F.V. (V/cell)	2 Min	3 Min	4 Min	5 Min	10 Min	15 Min	20 Min	30 Min	40 Min	50 Min	60 Min	120 Min
	1.85V	25.05	21.67	18.72	16.10	11.61	8.68	7.09	5.36	4.05	3.54	3.22
1.80V	27.67	23.81	20.44	17.76	12.28	9.13	7.42	5.57	4.21	3.67	3.33	1.824
1.75V	31.39	25.30	21.67	19.45	13.24	9.63	7.63	5.68	4.29	3.74	3.37	1.848
1.70V	34.31	27.73	23.80	21.60	13.71	9.93	7.86	5.81	4.37	3.79	3.41	1.860
1.67V	37.40	30.09	25.84	22.59	14.10	10.18	7.97	5.83	4.38	3.81	3.42	1.874
1.65V	37.83	30.42	26.11	22.82	14.21	10.26	8.03	5.87	4.41	3.82	3.43	1.882
1.60V	38.21	30.85	26.48	23.15	14.42	10.41	8.15	5.93	4.47	3.87	3.47	1.890

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

Trials A/O REV. May, 2011

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