



VRLA Rechargeable Battery

HR33-12 (HR33-12FR)



FEATURES

- Maintenance free(no water topping-up required).
- No free acid(Non-spillable battery).
- Low self-discharge rate, lower than 3% capacity loss per month.
- Can be used in any orientation(excluding used inverted).
- The battery is designed for high rate usage.
- Absorbent Glass Mat technology for efficient gas recombination.
- The power density at 5 min~15min discharging rate is 30% higher than BP series.

APPLICATION

- Electronic Medical Equipment
- Wheelchairs
- Lawn Mowers
- UPS
- Golf-Carts



SPECIFICATIONS

Nominal Voltage	12 V
Nominal Capacity	31Ah @ 10 hour rate F.V.(1.75V/cell)
Approx. Weight	10.0Kg(22.05lbs.)
Terminals	B1 (Fitting M5 bolt & nut) , T2 and I1 are optional
Internal Resistance	≤7mΩ (Fully Charged)
Max. Discharge Current	420 A (5 sec.)
Max. Charge Current	9.30 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)
Container Material	ABS(UL94-HB, UL94-V0 is optional)

ISO 9001	
ISO14001	
UL	
CE	
<ul style="list-style-type: none"> • IEC 61056-1 • JIS C 8702-1 • GB/T 19639.1 	

DIMENSION(mm/inch)	OUTER DIMENSIONS	TERMINAL TYPE
<ul style="list-style-type: none"> ■ Length 175±1.5 (6.89±0.06) ■ Width 166±1.5 (6.54±0.06) ■ Container Height 123±1.5 (4.84±0.06) ■ Total Height 125±1.5 (4.92±0.06) 		<ul style="list-style-type: none"> • Terminal B1 • Terminal T2 • Terminal I1 <p>Terminal Hardware Initial Torque: B1 (2.5Nm±5%), I1 (4.0Nm±5%)</p>

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		1353.0	924.0	669.0	571.0	434.0	330.0	276.0	243.0	133.8
1.70V		1617.0	1031.0	728.0	605.0	452.0	342.0	285.0	248.0	136.4
1.60V		1733.0	1085.0	761.0	627.0	462.0	351.0	290.0	252.0	138.6
1.50V		1782.0	1106.0	777.0	637.0	468.0	355.0	294.0	255.0	139.3
1.40V		1815.0	1120.0	786.0	643.0	471.0	357.0	296.0	257.0	139.7
1.30V		1832.0	1130.0	792.0	647.0	474.0	359.0	298.0	257.0	140.1

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		120.80	81.05	57.87	48.97	36.78	27.75	23.10	20.25	11.15
1.70V		147.00	90.44	62.98	51.89	38.31	28.76	23.85	20.67	11.37
1.60V		157.55	95.18	65.83	53.77	39.15	29.52	24.27	21.00	11.55
1.50V		162.00	97.02	67.21	54.63	39.66	29.86	24.60	21.25	11.61
1.40V		165.00	98.25	67.99	55.15	39.92	30.03	24.77	21.42	11.64
1.30V		166.55	99.12	68.51	55.49	40.17	30.19	24.94	21.42	11.68

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