



## VRLA Rechargeable Battery

# HR50-12 (HR50-12FR)



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

### APPLICATION

- UPS
- Wheelchairs
- Golf-Carts



### SPECIFICATIONS

Nominal Voltage	12 V
Nominal Capacity	48Ah @ 10 hour rate F.V.(1.75V/cell)
Approx. Weight	15.3Kg(33.74lbs.)
Terminals	B2 (Fitting M5 bolt & nut) , I1 and I2 are optional
Internal Resistance	≤5mΩ (Fully Charged )
Max. Discharge Current	600 A (5 sec.)
Max. Charge Current	14.4 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	ngs ISO 9001 REGISTERED	UKAS REGISTERED
ISO14001	WSC ISO14001	
UL	UL MH19884	
CE	CE C4M20310-2474-E-16	
<ul style="list-style-type: none"> <li>• IEC61056</li> <li>• JIS C 8702</li> <li>• GB/T 19639</li> </ul>		

### DIMENSION(mm/inch)

#### OUTER DIMENSIONS

#### TERMINAL TYPE

#### Length

197±1.5 (7.76±0.06)

#### Width

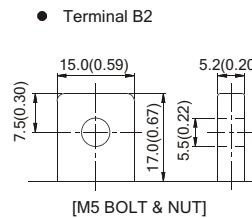
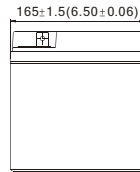
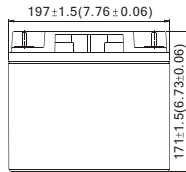
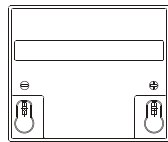
165±1.5 (6.50±0.06)

#### Container Height

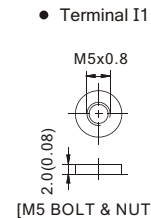
171±1.5 (6.73±0.06)

#### Total Height

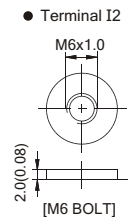
171±1.5 (6.73±0.06)



[M5 BOLT & NUT]



[M5 BOLT & NUT]



[M6 BOLT]

Terminal Hardware Initial Torque: B2/I1(4.0Nm±5%),I2(5.5Nm±5%)

### 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	2050.0	1400.0	1014.0	865.0	658.0	500.0	418.0	368.0	202.8
1.70V	2450.0	1563.0	1103.0	916.0	685.0	519.0	431.0	376.0	206.7
1.60V	2625.0	1644.0	1153.0	950.0	700.0	531.0	440.0	383.0	210.0
1.50V	2700.0	1675.0	1178.0	965.0	709.0	538.0	445.0	386.0	211.1
1.40V	2750.0	1698.0	1191.0	974.0	714.0	541.0	449.0	389.0	211.7
1.30V	2775.0	1713.0	1200.0	980.0	718.0	544.0	451.0	390.0	212.2

### 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	183.04	122.81	87.72	74.19	55.76	42.05	34.98	30.67	16.90
1.70V	222.73	137.11	95.42	78.56	58.05	43.65	36.07	31.33	17.23
1.60V	238.64	144.21	99.74	81.48	59.32	44.66	36.82	31.92	17.50
1.50V	245.45	146.93	101.90	82.76	60.08	45.25	37.24	32.17	17.59
1.40V	250.00	148.95	103.03	83.53	60.51	45.50	37.57	32.42	17.64
1.30V	252.27	150.26	103.81	84.05	60.85	45.75	37.74	32.50	17.68

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