



# Valve Regulated Lead-Acid Rechargeable Battery



## HR40-12

(160W/Cell 15Min Rate)

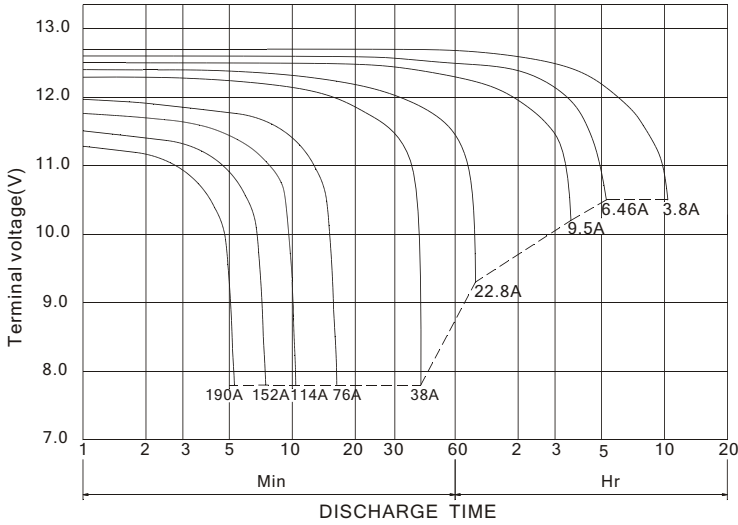
For High Rate Discharge

The battery is constructed by plates, separators, safety valves and container. Since the electrolyte is held by a glass-mat separator and plates, the battery can be used in any direction and position without leakage.

### PERFORMANCE SPECIFICATIONS

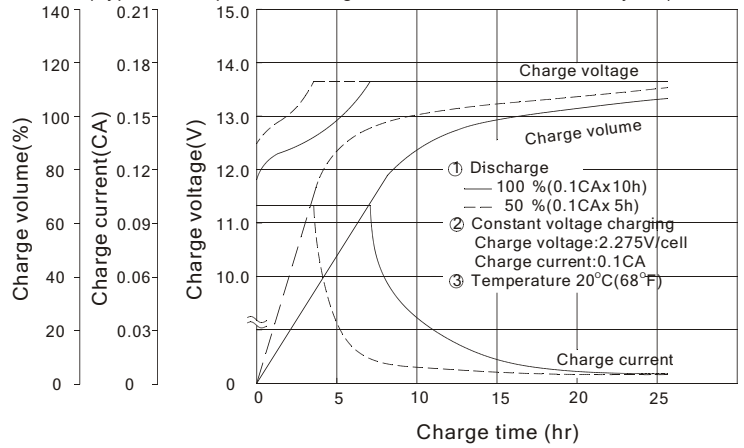
Nominal Voltage(V).....	12 volts(6cells in series)
Nominal Capacity(AH)	
10 Hour rate F.V.(1.75V/cell) (3.80A to 10.50volts).....	38.0A.H.
15 Min rate F.V.(1.30V/cell) (960W to 7.80volts) .....	20.0A.H.
Approximate Weight .....	12.1Kg(26.68lbs.)
Terminal	
Standard.....	Type B7
Optional.....	Type I2
Internal Resistance (Fully Charged Battery).....	<6m Ω
Maximum Discharge Current For 5 sec.(A).....	495A
Maximum Charge Current(A).....	11.4A
Ambient Temperature	
Charge.....	0°C(32°F)~40°C(104°F)
Discharge.....	-20°C(-4°F)~50°C(122°F)
storage.....	-20°C(-4°F)~40°C(104°F)
Vibration test:	
Frequency: 16.7HZ	
Amplitude: 4mm	
vibrate the battery horizontally or vertically for 60 minutes. The battery have no abnormality.	
Case.....	ABS
Dimension(mm/inch)	
Length           ±1.5mm.....	210/8.27
Width           ±1.5mm.....	129/5.08
Container Height ±1.5mm.....	168/6.61
Total Height   ±2mm.....	179/7.05
Application.....	UPS, Wheelchairs, Golf-Carts.

## HR40-12 Battery discharge characteristics (25°C/77°F)



## Battery Charging Characteristics

(Typical example of the charge characteristic for the standby use)

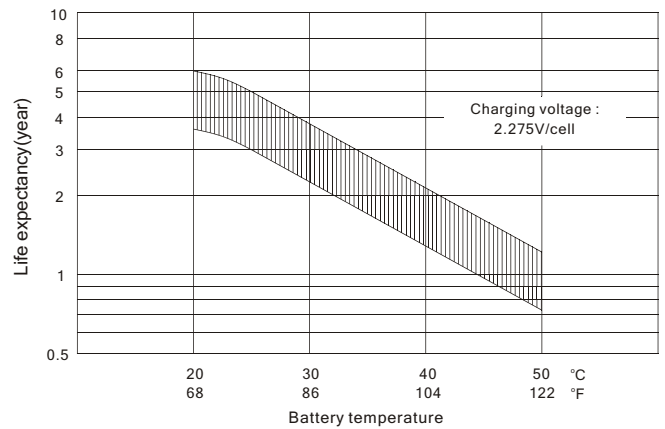


## Charging Procedure

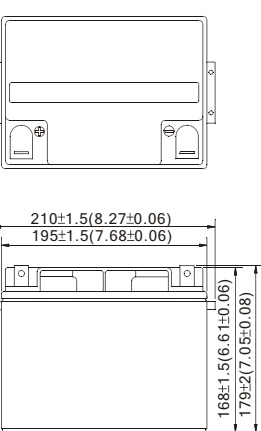
Application	Charging method	Charging Voltage at 20°C (V/cell)	Temperature compensation coefficient of charging voltage (mV/C /cell)	Max. charging current (CA)	Charging time 0.1CA, 20°C (h)		Temp (°C)
					100% discharge	50% discharge	
For standby power Source	Constant voltage & Constant current charging (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	

\*Temperature compensation of charging voltage is not needed, when using the batteries within 5°C to 35°C range.

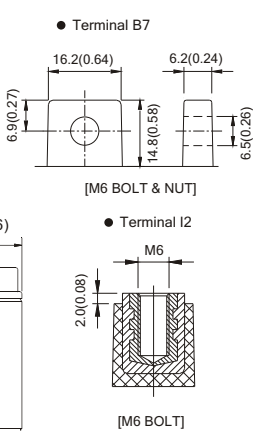
## Effect of Temperature on Long Term Float Life



## OUTER DIMENSIONS



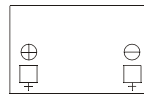
## TERMINAL TYPE



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

Final Voltage	Discharge time							
	5Min	10Min	15Min	20Min	30Min	40Min	50Min	60Min
10.80V	1640	1120	811	692	526	400	334	294
10.20V	1960	1250	882	733	548	415	345	301
9.60V	2100	1315	922	760	560	425	352	306
9.00V	2160	1340	942	772	567	430	356	309
8.40V	2200	1358	953	779	571	433	359	311
7.80V	2220	1370	960	784	574	435	361	312

## TERMINAL POSITION



**B.B. BATTERY CO., LTD.**

Web Site: <http://www.bb-battery.com>

**USA:**  
B&B BATTERY(USA) INC.  
6415 RANDOLPH ST.COMMERCE,  
CA,90040 U.S.A.  
TEL:1-323-278-1900.1-800-278-8599  
FAX:1-323-278-1268  
E-Mail:sales@bb-battery.com

**EUROPE:**  
B&B BATTERY(EUROPE) B.V.  
3 WIJNGAARDVELD, 9300 AALST,BELGIUM  
TEL:(00)32-53781567  
FAX:(00)32-53781567  
E-Mail:hansdevriese@bb-battery.com

**CHINA FACTORY:**  
B.B. BATTERY CO., LTD.  
CHENG DONG TRIAL AREA,HUANG GANG,  
RAOPING, GUANG DONG,CHINA,515700  
TEL:86-768-7601001-2  
FAX:86-768-7601469  
E-Mail:maggy@bb-battery.com

**HONG KONG:**  
NATIONAL TRADING LTD.  
TEL:852-2301-3800  
FAX:852-2739-1182  
E-Mail:bbhk@hkstar.com

**JAPAN:**  
B&B BATTERY(JAPAN) CO., LTD.  
1375-11 NARAHARA-MACHI,HACHIOJI,  
TOKYO 193-0803,JAPAN.  
TEL:81-426-25-6375  
FAX:81-426-25-6375  
E-Mail:miyata@bb-battery.com

**TAIWAN:**  
B.B. BATTERY(TAIWAN) CO., LTD.  
TEL:886-6-502-5150  
FAX:886-6-589-8087  
E-Mail:maggy@bb-battery.com

