

## VRLA Rechargeable Battery

# FTB180-12

### FEATURES

- Absorbent Glass Mat technology for efficient gas recombination
- Long life expectancy 10 years in float application
- Front accessible terminal for ease of assembly
- Carry handles for ease of installation
- Strengthened rib design to maintain structural integrity
- Flame-arrestor is installed to ensure safety
- Battery design allows for 48VDC configuration in a standard 23" rack
- One-way self-resealing safety valve for long life guarantee

### APPLICATION

- UPS
- Telecom
- Broadband
- Railroad Signal
- Electric Utility
- Central Office

### SPECIFICATIONS

Nominal Voltage	12V	
Nominal Capacity(25°C)	10 Hour Rate (18.46A, 10.5V)	184.6 Ah
	8 Hour Rate (22.50A, 10.5V)	180.0 Ah
	1 Hour Rate (117.3A, 10.5V)	117.3 Ah
Approx. Weight	59.5Kg(131.2lbs.)	
Terminals	I3 (M8 Female Thread)	
Max. Discharge Current	800 A (5 sec.)	
Max. Charge Current	45 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	≤ 3.5mΩ (Fully Charged )	
Float Voltage	2.25 to 2.30 VPC. Recommended 2.275 VPC @ 20°C	
Safety Valve	Opening pressure 10~35 kPa	



### CONTAINER MATERIAL

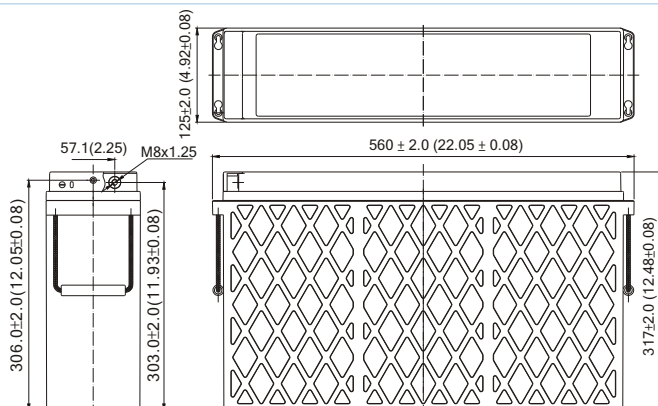
- Standard: ABS( UL 94-HB)  
Model Name: FTB180-12
- Optional: Flame Retardant ABS(UL 94-V0)  
Model Name: FTB180-12FR



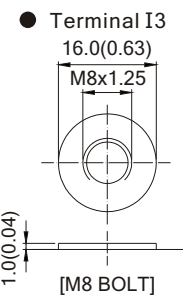
- IEC60896-21/22
- BS6290/4
- GB/T 19638.2
- Eurobat guide

### OUTER DIMENSIONS mm(inch)

Length (L)	Width (W)	Container Height (H)	Total Height (TH)
560±2.0(22.05±0.08)	125±2.0(4.92±0.08)	317±2.0(12.48±0.08)	317±2.0(12.48±0.08)

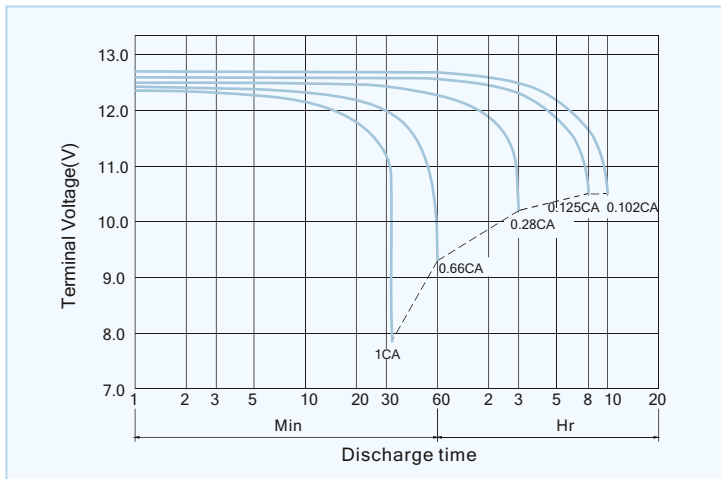


### TERMINAL TYPE

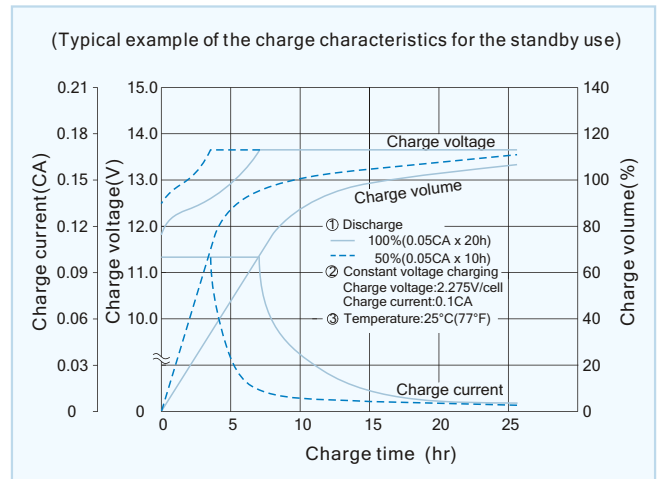


Terminal Hardware Initial Torque: 10.0Nm ±5%

**FTB180-12 (FTB180-12FR) discharge characteristics (25°C/77°F)**



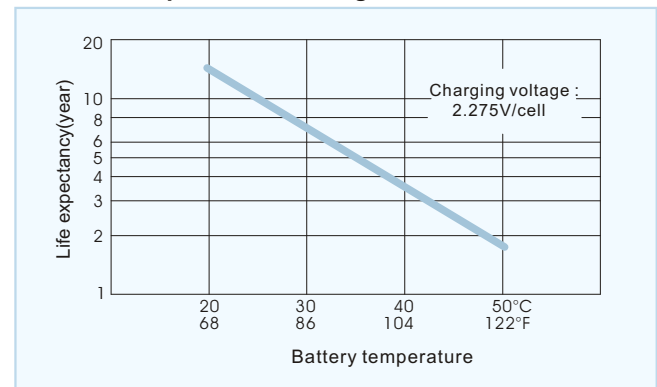
**Battery Charging Characteristics**



**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	0.2	24	20	0~40 (32~104°F)
For cycle service		2.40~2.50	-4	0.2	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)	15 Min	30 Min	45 Min	1 Hr	2 Hr	3 Hr	4 Hr	5 Hr	8 Hr	10 Hr	20 Hr
1.90V	2210	1885	1435	1169.9	725.2	523.5	425.1	350.5	244.8	197.1	108.0
1.85V	2549	2091	1578	1287.2	787.2	570.5	457.9	379.0	262.7	211.8	114.5
1.80V	2874	2241	1691	1366.1	823.2	590.7	472.6	393.0	265.7	219.3	118.6
1.75V	3127	2335	1762	1401.2	839.4	599.0	481.0	398.6	270.0	221.6	120.5
1.70V	3328	2390	1779	1412.9	846.1	604.3	485.1	399.9	270.9	222.0	120.7
1.65V	3453	2429	1807	1421.3	849.2	609.3	489.3	400.7	272.3	222.9	120.9
1.60V	3470	2455	1815	1423.1	850.5	611.1	490.3	401.4	273.1	223.3	121.0

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

Discharge Time / F.V. (V/cell)	15 Min	30 Min	45 Min	1 Hr	2 Hr	3 Hr	4 Hr	5 Hr	8 Hr	10 Hr	20 Hr
1.90V	188.7	159.5	119.6	97.49	60.43	43.64	35.42	29.21	20.40	16.42	9.00
1.85V	225.3	178.0	131.5	107.27	65.60	47.66	38.16	31.59	21.89	17.65	9.55
1.80V	258.4	191.9	141.2	113.98	68.71	49.39	39.48	32.75	22.15	18.28	9.88
1.75V	280.1	201.0	148.2	117.38	70.07	50.09	40.18	33.21	22.50	18.46	10.05
1.70V	302.5	207.6	151.1	119.22	70.74	50.53	40.53	33.33	22.57	18.50	10.06
1.65V	318.8	212.9	154.7	120.83	71.30	50.99	40.88	33.45	22.71	18.58	10.08
1.60V	324.0	216.8	156.1	121.56	71.59	51.14	40.93	33.51	22.78	18.61	10.09

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

For operation, please refer to the instruction from technical manual.

Trial A/0 REV. Mar. 2015

**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

**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

**EUROPE:**  
 B&B BATTERY(EUROPE) B.V.  
 SUITE 8, HAAKSBERGWEG 33, 1101  
 BP AMSTERDAM, THE NETHERLANDS  
 TEL: 31-30-320-0190  
 MOBILE: 852-9128-2711  
 E-Mail: dliu@bb-battery.com

**HONG KONG:**  
 B&B BATTERY(Hong Kong) Co.  
 TEL:852-2311-4918  
 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:kevinlin@bb-battery.com