



VRLA Rechargeable Battery

FTB180-12 (FTB180-12FR)

FEATURES

- Absorbent Glass Mat technology for efficient gas recombination
- 10-12 years design life in float applications @ 25°C
- 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	59.0Kg(130.1lbs.)	
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	≤ 3.2mΩ (Fully Charged)	
Float Voltage	2.25 to 2.30 VPC. Recommended 2.275 VPC @ 20°C	
Safety Valve	Opening pressure 10~35 kPa	

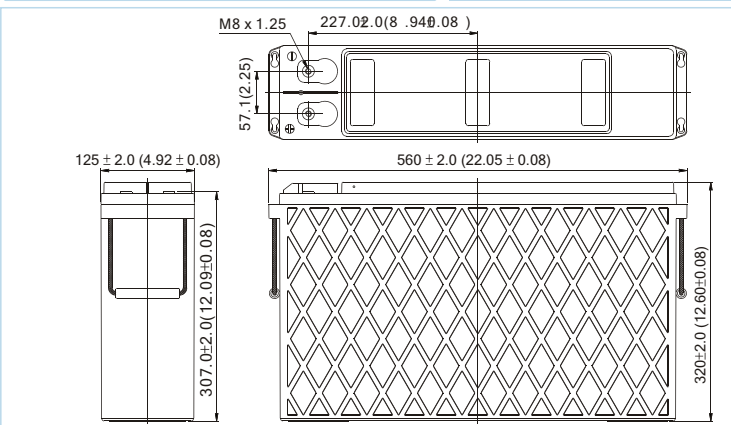


CONTAINER MATERIAL

- FTB180-12:
ABS: UL 94-HB (Dark gray color)
- FTB180-12FR:
ABS: UL 94-V0 (Light gray color)

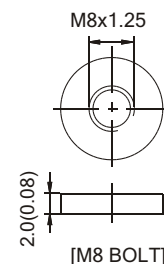
ISO 9001	ISO 14001
UL	CE
<ul style="list-style-type: none"> ● IEC60896 ● GB/T 19638 	<ul style="list-style-type: none"> ● BS6290/4 ● Eurobat guide

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)	307±2.0(12.09±0.08)	320±2.0(12.60±0.08)



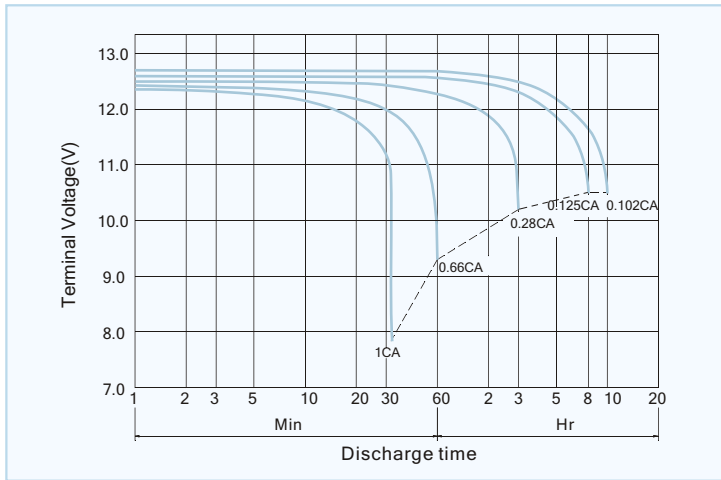
TERMINAL TYPE

- Terminal I3

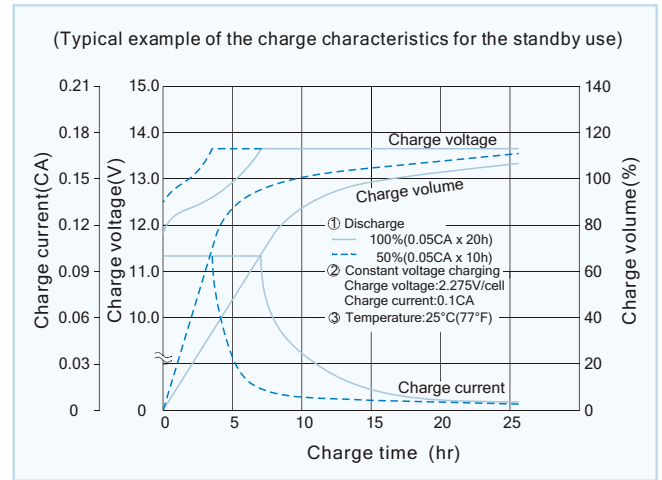


Terminal Hardware Initial Torque: 10.0Nm ±5%

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



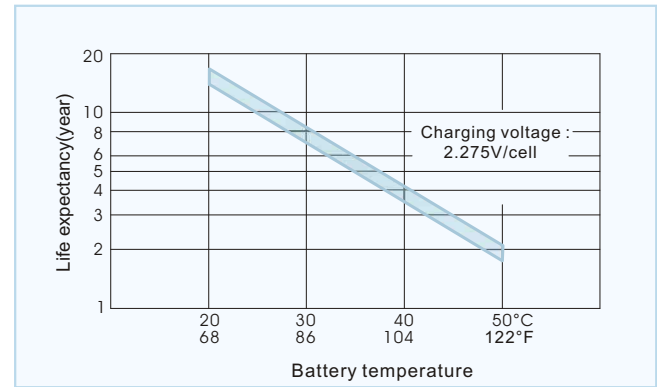
Battery Charging Characteristics



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

F.V. (V/cell) \ Discharge Time	30 Min	45 Min	1 Hr	2 Hr	3 Hr	4 Hr	5 Hr	8 Hr	10 Hr	20 Hr
1.90V	1784	1435	1169.9	725.2	523.5	425.1	350.5	244.8	197.1	108.0
1.85V	2004	1578	1287.2	787.2	570.5	457.9	379.0	262.7	211.8	114.5
1.80V	2175	1691	1366.1	823.2	590.7	472.6	393.0	265.7	219.3	118.6
1.75V	2244	1762	1401.2	839.4	599.0	481.0	398.6	270.0	221.6	120.5
1.70V	2256	1779	1412.9	846.1	604.3	485.1	399.9	270.9	222.0	120.7
1.65V	2275	1807	1421.3	849.2	609.3	489.3	400.7	272.3	222.9	120.9

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

F.V. (V/cell) \ Discharge Time	30 Min	45 Min	1 Hr	2 Hr	3 Hr	4 Hr	5 Hr	8 Hr	10 Hr	20 Hr
1.90V	151.0	119.6	97.49	60.43	43.64	35.42	29.21	20.40	16.42	9.00
1.85V	173.0	131.5	107.27	65.60	47.66	38.16	31.59	21.89	17.65	9.55
1.80V	191.0	141.2	113.98	68.71	49.39	39.48	32.75	22.15	18.28	9.88
1.75V	200.3	148.2	117.38	70.07	50.09	40.18	33.21	22.50	18.46	10.05
1.70V	204.8	151.1	119.22	70.74	50.53	40.53	33.33	22.57	18.50	10.06
1.65V	207.3	154.7	120.83	71.30	50.99	40.88	33.45	22.71	18.58	10.08

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

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