

Specifications

Part Number	CB12V3.5AH	
Nominal Voltage	12 Volt	
Nominal Capacity (20 HR)	3.5 AH	
Dimension	Length	134 +/-2mm (5.27 inches)
	Width	67 +/-2mm (2.63 inches)
	Container Height	60.5 +/-2mm (2.38 inches)
	Total Height	66.5 +/-2mm (2.61 inches)
Approx Weight	1.35 kg (2.98lbs)	
Terminal	T1	
Container Material	ABS Fire Retardant	
Rated Capacity	3.44 AH / 0.172A	(20hr, 1.80V/cell, 25°C/77°F)
	3.20AH / 0.32A	(10hr, 1.80V/cell, 25°C/77°F)
	2.80 AH / 0.561A	(5hr, 1.75V/cell, 25°C/77°F)
	2.54 AH / 0.848A	(3hr, 1.75V/cell, 25°C/77°F)
	2.07 AH / 2.07A	(1hr, 1.60V/cell, 25°C/77°F)
Plate Type	Die-Cast	
Separator Type	Absorbed Glass Matt	
Max. Discharge Current	48A (5s)	
Short Circuit Current	96	
Internal Resistance	Approx 45mΩ	
Warranty - Cyclic Use	Not Covered	
Warranty - Standby & Backup Power	12 Months	
Warranty - Solar	12 Months	
Operating Temp. Range	Discharge	-15 ~ 50°C (5 ~ 122°F)
	Charge	0 ~ 40°C (32 ~ 104°F)
	Storage	-15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range	25°C +/-3° (77°F +/-5°)	
Cycle Use	Initial Charging Current less than 0.96A. Voltage 14.4V ~ 15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C	
Standby Use	No limit on Initial Charging Current Voltage 13.5V ~ 13.8V at 25°C (77°F)Temp. Coefficient -20mV/°C	
Capacity affected by temperature	40°C (104°F)	1.03
	25°C (77°F)	1
	0°C (32°F)	0.86
Self Discharge	Fusion CB Series batteries can be stored for up to 6 months at 25° C (77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



Applications

- ♦ Fire, Alarm & Security Systems
- ♦ Medical Equipment
- ♦ Toys
- ♦ Emergency Lighting Systems
- ♦ UPS Systems
- ♦ Communication Equipment
- ♦ Solar Power Systems
- ♦ Control Equipment
- ♦ Electronic Testing Equipment
- ♦ Marine Equipment
- ♦ Telecommunication Systems
- ♦ Lighting Systems
- ♦ Deep-Cycle Applications
- ♦ Caravans
- ♦ Boats
- ♦ Motor Homes
- ♦ Wind Powered Systems
- ♦ Load Leveling & Storage Equipment
- ♦ Power Generation Plants
- ♦ Stand-by Power Systems
- ♦ Other Speciality Applications



Constant Current Discharge (Amperes) at 25°C (77°F)

F.V Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	6.09	4.68	3.88	3.35	2.59	1.91	1.61	0.95	0.74	0.61	0.494	0.428	0.345	0.289	0.158
1.80V/cell	8.18	5.98	4.68	3.96	3.06	2.22	1.8	1.04	0.8	0.65	0.53	0.46	0.366	0.298	0.16
1.75V/cell	9.22	6.57	5.12	4.26	3.17	2.3	1.89	1.08	0.82	0.66	0.544	0.472	0.373	0.306	0.162
1.70V/cell	10.16	7.16	5.46	4.48	3.3	2.4	1.95	1.1	0.84	0.68	0.558	0.482	0.378	0.312	0.164
1.65V/cell	11.2	7.73	5.81	4.76	3.49	2.46	1.99	1.12	0.87	0.7	0.573	0.492	0.384	0.318	0.167
1.60V/cell	12.35	8.39	6.21	5.07	3.68	2.56	2.01	1.17	0.9	0.72	0.592	0.503	0.388	0.322	0.168

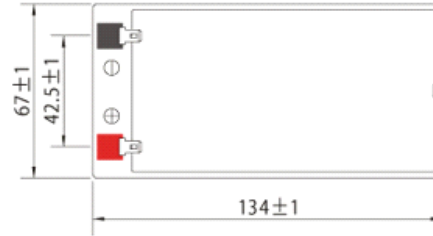
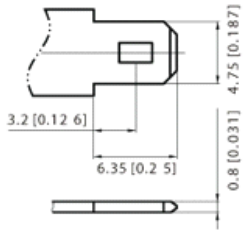
Constant Power Discharge (Amperes) at 25°C (77°F)

F.V Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	11.14	8.64	7.23	6.32	4.94	3.67	3.1	1.85	1.45	1.18	0.968	0.842	0.682	0.571	0.314
1.80V/cell	14.8	10.92	8.62	7.36	5.74	4.23	3.46	2	1.55	1.26	1.034	0.9	0.721	0.588	0.316
1.75V/cell	16.33	11.8	9.3	7.84	5.91	4.35	3.6	2.07	1.58	1.28	1.058	0.921	0.732	0.603	0.319
1.70V/cell	17.48	12.57	9.79	8.18	6.12	4.51	3.7	2.12	1.62	1.31	1.083	0.939	0.742	0.615	0.325
1.65V/cell	19	13.44	10.3	8.62	6.4	4.58	3.76	2.14	1.68	1.35	1.109	0.957	0.751	0.626	0.329
1.60V/cell	20.48	14.26	10.9	9.08	6.71	4.75	3.78	2.22	1.72	1.39	1.141	0.974	0.757	0.632	0.33

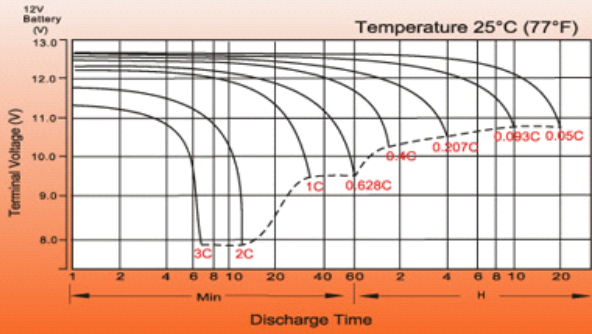
Dimensions

T1 Terminal

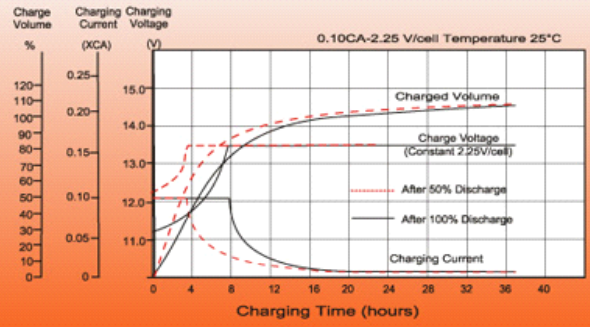
Unit: mm [inches]



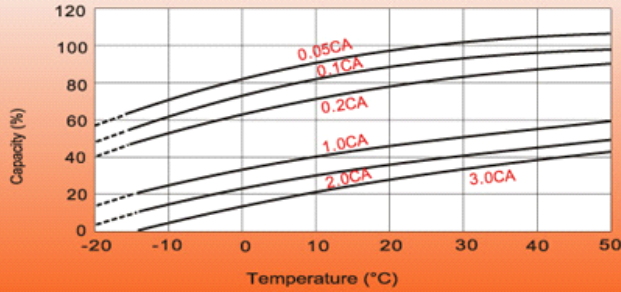
Discharge Characteristics



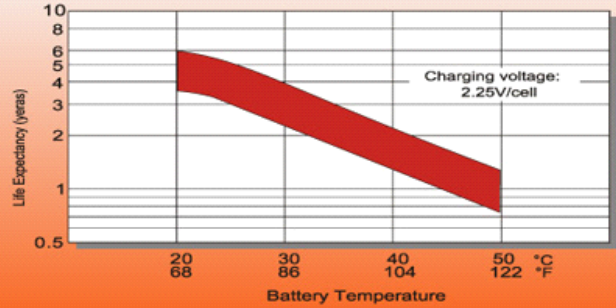
Float Charging Characteristics



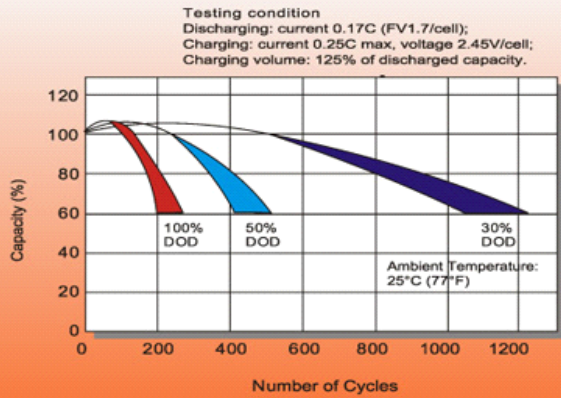
Temperature Effects in Relation to Battery Capacity



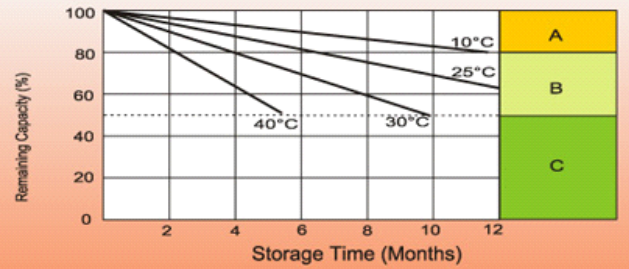
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



- A** No supplementary charge required.
(Carry out supplementary charge before use if 100% capacity is required).
- B** Supplementary charge required before use. Optional charging way as below:
1. Charged for above 3 days at limited current 0.25C A and constant voltage 2.25V/cell.
2. Charged for above 20 hours at limited current 0.25C A and constant voltage 2.45V/cell.
3. Charged for 8-10 hours at limited current 0.05C A.
- C** Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.

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