

# CBL 3.5-4

4V 3.5AH

General



## CBL3.5-4

Awaiting Image

## Physical Specification

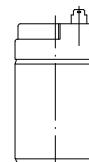
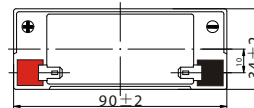
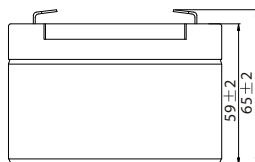
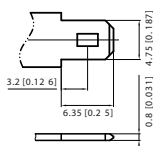
Part Number:	<b>CBL3.5-4</b>
Length:	<b>90 ± 2 mm (3.54 inches)</b>
Width:	<b>34 ± 2 mm (1.34 inches)</b>
Container Height:	<b>59 ± 2 mm (2.32 inches)</b>
Total Height (with terminal):	<b>65 ± 2 mm (2.56 inches)</b>
Approx Weight:	<b>Approx 0.45kg (0.99lbs)</b>

## Specifications

	Normal Voltage	4V
	Normal Capacity (20HR)	3.5AH
Terminal Type	Standard Terminal	\
	Optional Terminal	-
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	UL94:VO
Rated Capacity	3.50 AH/0.175A	(20hr, 1.80V/cell, 25°C / 77°F)
	3.26 AH/0.326A	(10hr, 1.80V/cell, 25°C / 77°F)
	3.00 AH/0.60A	(5hr, 1.75V/cell, 25°C / 77°F)
	2.67 AH/0.89A	(3hr, 1.75V/cell, 25°C / 77°F)
	2.20 AH/2.20A	(1hr, 1.60V/cell, 25°C / 77°F)
Max Discharge Current	52.5A (5s)	
Internal Resistance	Approx 14mΩ	
Discharge Characteristics	Operating Temp. Range	Discharge: -15 ~ 50°C (5 ~ 122°F)
		Charge: 0 ~ 40°C (5 ~ 104°F)
		Storage: -15 ~ 40°C (5 ~ 104°F)
	Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)
	Cycle Use	Initial Charging Current less than 1.05A. Voltage 4.8V ~ 5.0V at 25°C (77°F) Temp. Coefficient -10mV/°C
	Standby Use	No limit on Initial Charging Current Voltage 4.5V ~ 4.6V at 25°C (77°F) Temp. Coefficient -6mV/°C
Capacity affected by Temperature	40°C (104°F) 103%	
	25°C (77°F) 100%	
	0°C (32°F) 86%	
Design Floating Life at 20°C	5 Years	
Self Discharge	Canbat batteries may be stored for up to 6 months at 25°C(77F) and then a refresh charge is required. For higher temperatures the time interval will be shorter.	

## Dimensions

### Terminal



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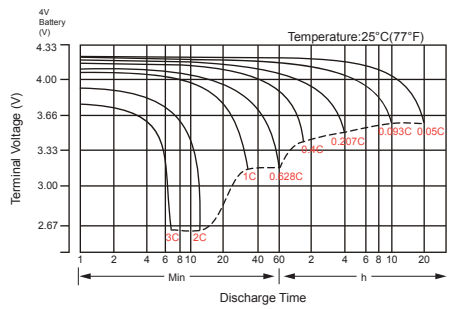
### Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	5 min	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	6.67	5.12	4.24	3.67	2.83	2.09	1.76	1.04	0.81	0.66	0.54	0.47	0.378	0.316	0.173
1.80V/cell	8.90	6.54	5.12	4.33	3.34	2.43	1.97	1.14	0.88	0.71	0.58	0.50	0.401	0.326	0.175
1.75V/cell	10.1	7.19	5.6	4.66	3.47	2.52	2.06	1.18	0.89	0.72	0.60	0.52	0.408	0.334	0.177
1.70V/cell	11.1	7.83	5.97	4.9	3.61	2.62	2.13	1.21	0.92	0.74	0.61	0.53	0.413	0.341	0.180
1.65V/cell	12.2	8.45	6.35	5.2	3.81	2.69	2.18	1.23	0.96	0.77	0.63	0.54	0.42	0.348	0.182
1.60V/cell	13.5	9.20	6.79	5.54	4.03	2.80	2.20	1.28	0.99	0.79	0.65	0.55	0.424	0.352	0.183

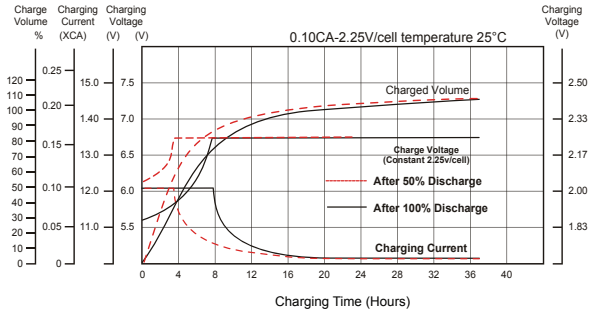
### Constant Power Discharge (Watts) at 25°C (77°F)

F.V/Time	5 min	10 min	15 min	20 min	30 min	45 min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	12.2	9.50	7.91	6.91	5.40	4.01	3.40	2.02	1.59	1.29	1.06	0.92	0.746	0.625	0.343
1.80V/cell	16.2	11.9	9.40	8.05	6.28	4.63	3.78	2.19	1.70	1.37	1.13	0.98	0.789	0.643	0.346
1.75V/cell	17.9	12.9	10.2	8.58	6.46	4.76	3.94	2.26	1.72	1.40	1.16	1.01	0.801	0.660	0.349
1.70V/cell	19.1	13.8	10.7	8.90	6.69	4.93	4.05	2.32	1.77	1.44	1.18	1.03	0.811	0.672	0.355
1.65V/cell	20.8	14.7	11.3	9.40	7.00	5.01	4.11	2.34	1.84	1.48	1.21	1.05	0.822	0.685	0.360
1.60V/cell	22.4	15.6	11.9	9.90	7.34	5.19	4.13	2.42	1.88	1.52	1.25	1.07	0.828	0.691	0.361

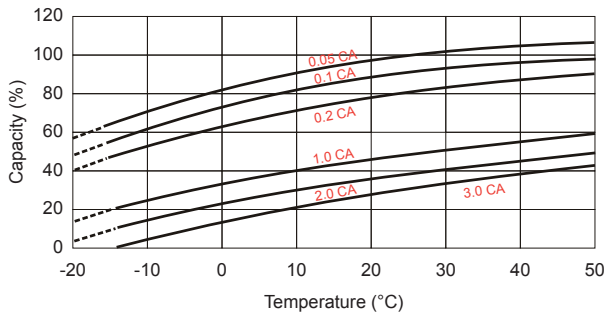
### Discharge Characteristics



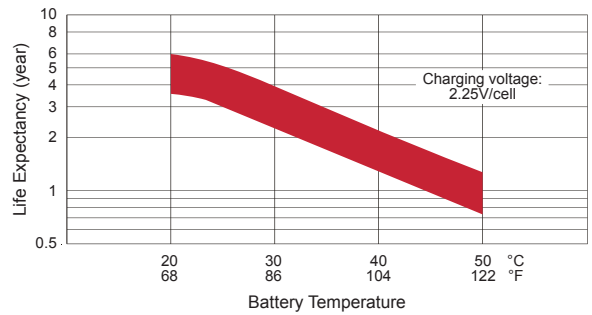
### Float Charging Characteristics



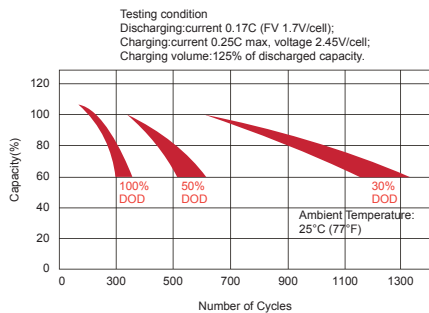
### Temperature Effects in Relation to Battery Capacity



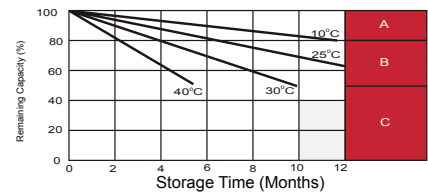
### Effect of Temperature on Long Term Float Life



### Cycle Life in Relation to Depth of Discharge



### Self Discharge Characteristics



- A** No supplementary required (Carryout 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 0.25CA and constant voltage 2.25V/cell.  
 2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.25V/cell.  
 3. Charged for 8 ~ 10 hours at limited current 0.05 CA.
- 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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