

# CBL 1.9-12

12V 1.9AH

General Purpose



## CBL1.9-12

Awaiting Image

## Physical Specification

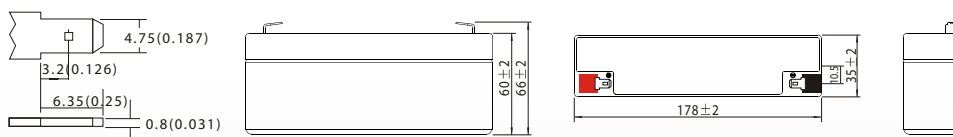
Part Number:	<b>CBL1.9-12</b>
Length:	<b>178 ± 2 mm (7.00 inches)</b>
Width:	<b>35 ± 2 mm (1.38 inches)</b>
Container Height:	<b>60 ± 2 mm (2.36 inches)</b>
Total Height (with terminal):	<b>66 ± 2 mm (2.60 inches)</b>
Approx Weight:	<b>Approx 0.80kg (1.92lbs)</b>

## Specifications

	Normal Voltage	12V
	Normal Capacity (20HR)	1.9AH
Terminal Type	Standard Terminal	T1
	Optional Terminal	-
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	UL94:VO
Rated Capacity	1.90 AH/0.095A	(20hr, 1.80V/cell, 25°C / 77°F)
	1.77 AH/0.177A	(10hr, 1.80V/cell, 25°C / 77°F)
	1.61 AH/0.323A	(5hr, 1.75V/cell, 25°C / 77°F)
	1.45 AH/0.485A	(3hr, 1.75V/cell, 25°C / 77°F)
	1.19 AH/1.19A	(1hr, 1.60V/cell, 25°C / 77°F)
Max Discharge Current	28.5A (5s)	
Internal Resistance	Approx 80mΩ	
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 0.57A. 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) 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

### T1 Terminal



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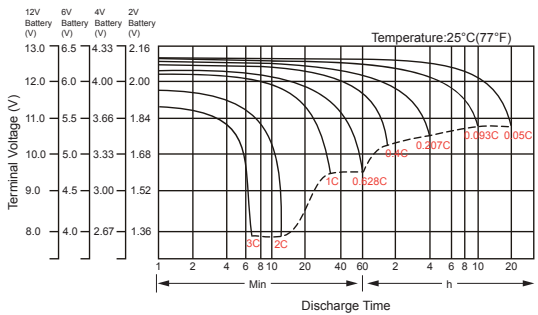
### Constant Current Discharge (Amperes) at 25°C (77°F)

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	3.62	2.78	2.30	1.99	1.54	1.13	0.96	0.565	0.442	0.359	0.293	0.254	0.205	0.171	0.094
1.80V/cell	4.86	3.55	2.78	2.35	1.82	1.32	1.07	0.617	0.476	0.384	0.315	0.273	0.218	0.177	0.095
1.75V/cell	5.48	3.90	3.04	2.53	1.88	1.37	1.12	0.640	0.485	0.392	0.323	0.280	0.221	0.181	0.096
1.70V/cell	6.03	4.25	3.24	2.66	1.96	1.42	1.16	0.656	0.498	0.403	0.331	0.286	0.224	0.185	0.098
1.65V/cell	6.65	4.59	3.45	2.83	2.07	1.46	1.18	0.665	0.519	0.417	0.340	0.292	0.228	0.189	0.099
1.60V/cell	7.33	4.98	3.69	3.01	2.19	1.52	1.19	0.694	0.535	0.430	0.352	0.299	0.230	0.191	0.100

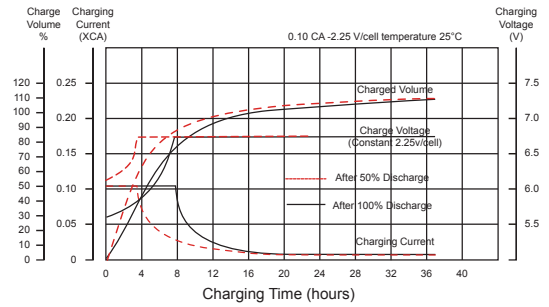
### Constant Power Discharge (Watts) at 25°C (77°F)

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	6.62	5.13	4.29	3.75	2.93	2.18	1.84	1.10	0.862	0.703	0.575	0.500	0.405	0.339	0.186
1.80V/cell	8.79	6.48	5.12	4.37	3.41	2.51	2.05	1.19	0.922	0.746	0.614	0.524	0.428	0.349	0.188
1.75V/cell	9.69	7.01	5.52	4.66	3.51	2.58	2.14	1.23	0.935	0.760	0.628	0.547	0.435	0.358	0.190
1.70V/cell	10.38	7.46	5.81	4.86	3.63	2.68	2.20	1.26	0.960	0.779	0.643	0.558	0.440	0.365	0.193
1.65V/cell	11.28	7.98	6.14	5.12	3.80	2.72	2.23	1.27	0.996	0.803	0.658	0.568	0.446	0.372	0.195
1.60V/cell	12.16	8.47	6.45	5.39	3.98	2.82	2.24	1.32	1.022	0.826	0.678	0.579	0.450	0.375	0.196

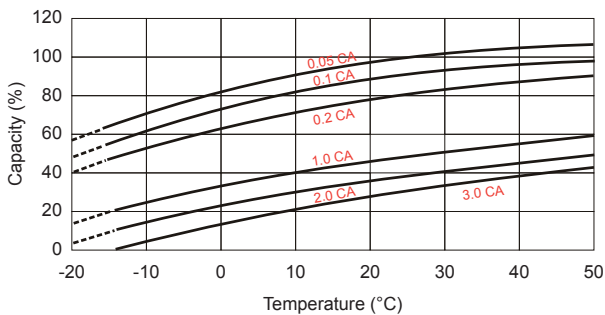
### Discharge Characteristics



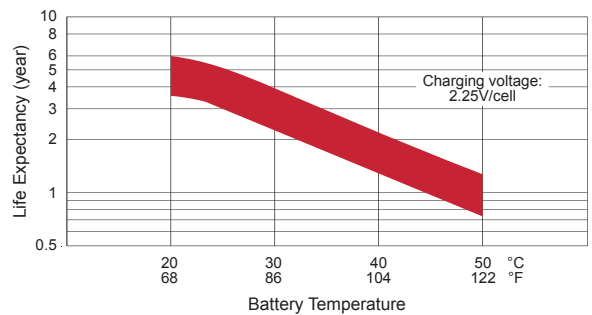
### Float Charging Characteristics



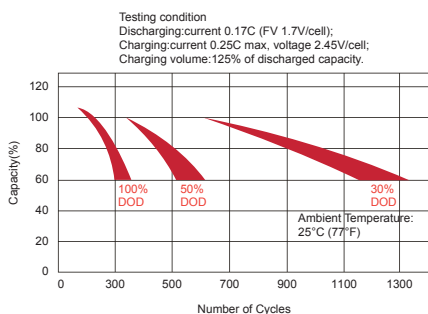
### Temperature Effects in Relation to Battery Capacity



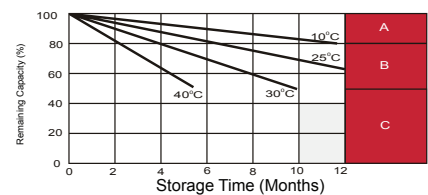
### Effect of Temperature on Long Term Float Life



### 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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