

# CBL4.5-12

12V 4.5AH

General Purpose Sealed Lead Acid Battery

# CANBAT

## CBL4.5-12



## Physical Specification

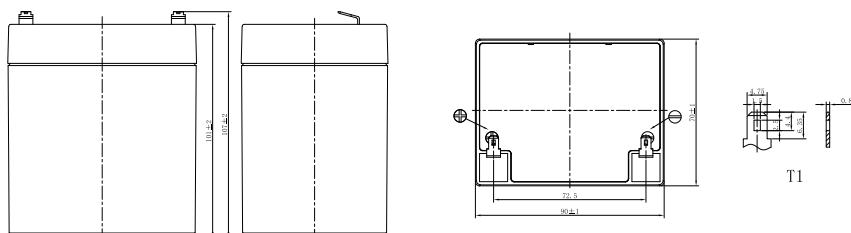
Part Number:	CBL4.5-12
Length:	90 ± 2 mm (3.54 inches)
Width:	70 ± 2 mm (2.76 inches)
Container Height:	101 ± 2 mm ( 3.98 inches)
Total Height (with terminal):	107 ± 2 mm ( 4.21 inches)
Approx Weight:	1.39 Kg (3.06 lbs)

## Specifications

	Nominal Voltage	12V
	(C20 ,1.75V/cell)	4.5AH
Terminal Option	T1/T2	
Container Material	Standard Option	ABS
	Flame Retardant Option (FR)	ABS (UL94:VO)
Rated Capacity	(20hr,0.225A,1.75V/cell)	4.50 Ah
	(10hr,0.419A,1.75V/cell)	4.19 Ah
	(5hr,0.765A,1.75V/cell)	3.83 Ah
	(3hr,1.13A,1.75V/cell)	3.39 Ah
	(1hr,2.66A,1.60V/cell)	2.66 Ah
Max Discharge Current (5s)	75A	
Internal Resistance	Approx. 48mΩ	
Discharge Characteristics	Operating Temp. Range	Discharge: -15°C~50°C (5°F~122°F)
		Charge: -20~40°C (-4~104°F)
		Storage: -15°C~40°C (5°F~104°F)
	Nominal Operating Temp. Range	25 ± 3°C (77 ± 5°F)
	Cycle Use	Initial Charging Current less than 1.35A. Voltage 14.4V~15.0V at 25°C (77°F) Temp. Coefficient -30mV/°C
	Self Discharge	Initial Charging Current less than 1.35A. 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	20+ Years	
Self Discharge	Canbat Lead Acid AGM batteries may be stored for up to 6 months at 25°C (77°F) and then a refresh charge is required. For higher temperatures the time interval will be shorter. Self-discharge is less than 2%	

## Dimensions

### T1/T2 Terminal



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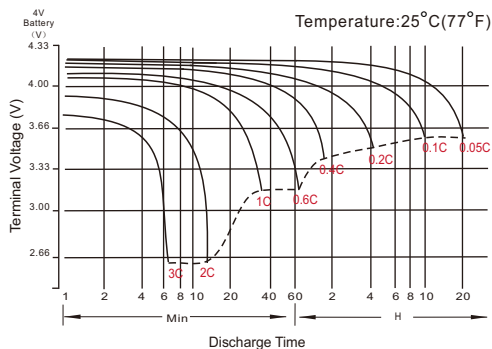
## Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	11.3	8.26	6.55	5.35	4.07	2.99	2.44	1.84	1.53	1.09	0.876	0.744	0.637	0.500	0.409	0.220
1.80V/cell	12.2	8.69	6.81	5.51	4.17	3.04	2.48	1.87	1.56	1.11	0.888	0.755	0.645	0.507	0.413	0.222
1.75V/cell	13.1	9.10	7.06	5.68	4.27	3.11	2.53	1.90	1.58	1.13	0.900	0.765	0.653	0.513	0.419	0.225
1.70V/cell	14.1	9.50	7.31	5.84	4.37	3.16	2.57	1.94	1.61	1.14	0.910	0.775	0.662	0.519	0.424	0.227
1.67V/cell	14.8	9.80	7.46	5.95	4.43	3.20	2.60	1.95	1.62	1.15	0.920	0.780	0.667	0.523	0.427	0.229
1.60V/cell	16.0	10.40	7.80	6.17	4.56	3.29	2.66	2.00	1.66	1.17	0.940	0.795	0.679	0.532	0.433	0.231

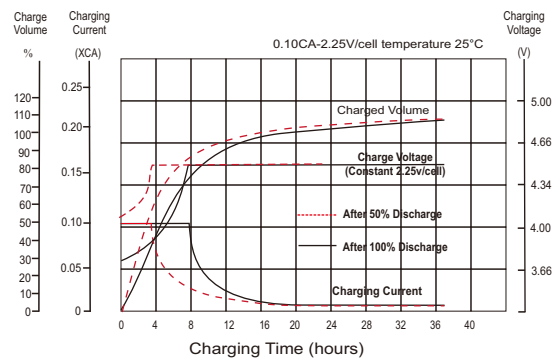
## Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	21.3	15.8	12.6	10.3	7.86	5.79	4.74	3.59	3.01	2.15	1.73	1.47	1.26	0.990	0.812	0.489
1.80V/cell	23.0	16.5	13.1	10.5	8.02	5.89	4.82	3.65	3.04	2.18	1.75	1.49	1.28	1.01	0.821	0.494
1.75V/cell	24.7	17.2	13.4	10.8	8.18	5.98	4.89	3.69	3.09	2.21	1.76	1.50	1.29	1.02	0.831	0.499
1.70V/cell	26.4	17.9	13.9	11.1	8.33	6.07	4.96	3.74	3.12	2.23	1.79	1.52	1.31	1.03	0.840	0.504
1.67V/cell	27.4	18.4	14.0	11.3	8.42	6.13	5.00	3.77	3.15	2.25	1.80	1.53	1.31	1.04	0.845	0.507
1.60V/cell	29.5	19.3	14.6	11.6	8.63	6.26	5.09	3.83	3.20	2.29	1.83	1.56	1.33	1.05	0.858	0.515

## Discharge Characteristics



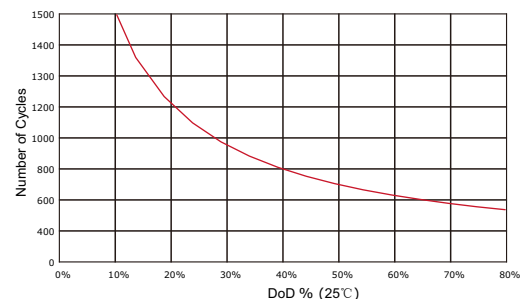
## Float Charging Characteristics



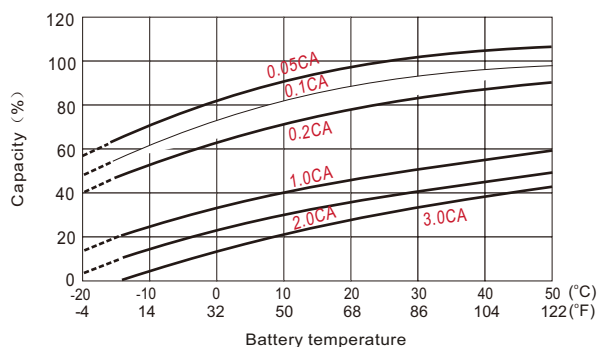
## Valve-Regulated Sealed Lead Acid Batteries

Sealed lead acid batteries are engineered to provide reliable power in a compact design. They are spill-proof and require zero maintenance, as adding water is never necessary. The acid in the battery is suspended in a glass mat separator, which makes the cells leak-proof during normal battery operation. Our batteries are proudly designed in Canada with quality and performance in mind, offering one of the highest cycle life among other sealed lead acid battery brands. Canbat AGM batteries are manufactured with pure lead to ensure a low self-discharge rate of less than 2%, meaning stored batteries are only required a recharge once every six months. The series also features an outer container made from ABS material.

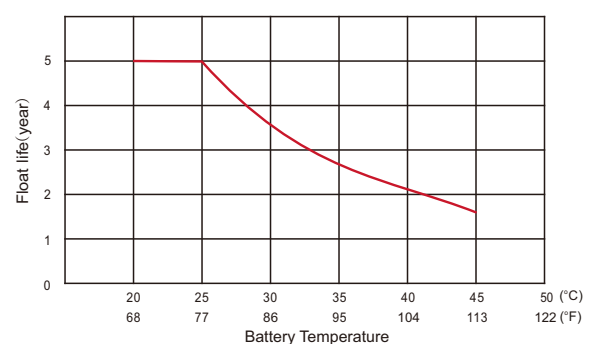
## Cycle Life Relation o Depth of Discharge



## Temperature Effects in Relation to Battery Capacity



## Float Service Life



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