

# ECOBAT

## VRLA-AGM Battery

### ELC12-12 (12V 12Ah)

#### Specification

Nominal Voltage	12V	
Nominal Capacity(20 Hr)	12Ah	
Dimension	Length	152±1mm( 5.98 inches)
	Width	99±1mm( 3.90 inches)
	Containeriner Height	96±1mm( 3.78 inches)
	Total Height (With terminal)	102±1mm( 4.02 inches)
	Approx Weight	Approx3.40kgs(7.50 lbs)
Design life	5 years	
Terminal	M5	
Container Material	ABS	
Rated Capacity	12.0Ah/0.60A	(20hr, 1.80V/Cell, 25 °C/77°F)
	11.3Ah/1.13A	(10hr, 1.80V/Cell, 25 °C/77°F)
	10.7Ah/2.14A	(5hr, 1.75V/Cell, 25 °C/77°F)
	7.83Ah/7.83A	(1hr, 1.60V/Cell, 25 °C/77°F)
Max. Discharge Current	180A(5s)	
Internal Resistance	Appro≤16.0mΩ	
Operating Temp. Range	Discharge:	-20 °C~50 °C
	Charge:	0 °C~40 °C
	Storage:	-20 °C~50 °C
Nominal Operating Temp. Range	25±3 °C(77±5°F )	
Cycle Use	Initial Charging Current Less than 6A. Voltage 14.4V-15.0V at 25 °C(77°F ) Temp. Coefficient-20mV/C	
	No limit on Intital Charging Current Voltage 13.5V-13.8V at 25 °C(77°F ) Temp. Coefficient-20mV/C	
Standby Use	40 °C( 104°F )	103%
Capacity affected by Temperature	25 °C( 77°F )	100%
	0 °C( 32°F )	86%
	ELC series batteries may be stored for up to 6 months at25 °C(77°F ) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



#### Applications

- ◆ All purpose
- ◆ Uninterruptable Power Supply(UPS)
- ◆ Electric Power System(EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and securitysystem
- ◆ Electronic apparatus & equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto controlsystem

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

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	47.90	31.41	23.06	13.69	9.98	7.83	4.95	3.39	2.26	1.52	1.20	0.634
1.67V	45.63	30.10	22.56	13.46	9.82	7.58	4.87	3.33	2.23	1.49	1.18	0.622
1.70V	43.71	28.46	22.25	13.28	9.69	7.34	4.77	3.27	2.18	1.46	1.17	0.612
1.75V	41.66	27.14	21.07	12.84	9.44	7.11	4.68	3.21	2.14	1.45	1.15	0.600
1.80V	38.47	25.28	19.66	12.33	9.13	6.91	4.51	3.09	2.06	1.40	1.13	0.593

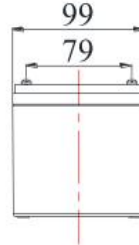
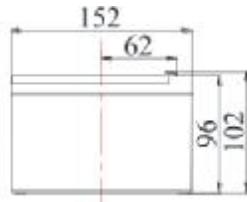
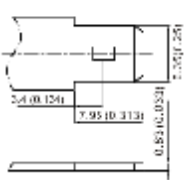
#### Constant Power Discharge (Watts) at 25 °C (77 °F)

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	89.19	60.27	44.57	26.62	19.47	15.41	9.72	6.69	4.48	3.03	2.41	1.265
1.67V	85.47	57.83	43.71	26.25	19.22	14.88	9.55	6.57	4.40	2.99	2.39	1.246
1.70V	81.96	54.70	43.22	25.95	19.03	14.35	9.37	6.45	4.33	2.94	2.37	1.231
1.75V	78.51	52.23	41.01	25.17	18.57	13.82	9.20	6.33	4.24	2.92	2.33	1.205
1.80V	73.20	48.85	38.33	24.24	18.00	13.29	8.83	6.08	4.08	2.84	2.30	1.200

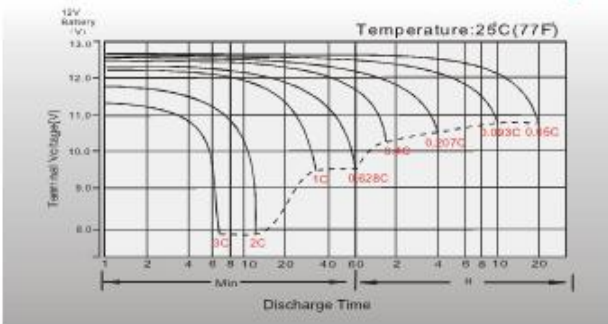
### ELC12-12 (12V 12Ah)

#### Dimensions

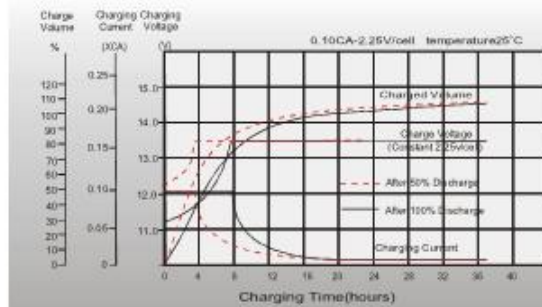
##### F2 Terminal Unit: mm (inches)



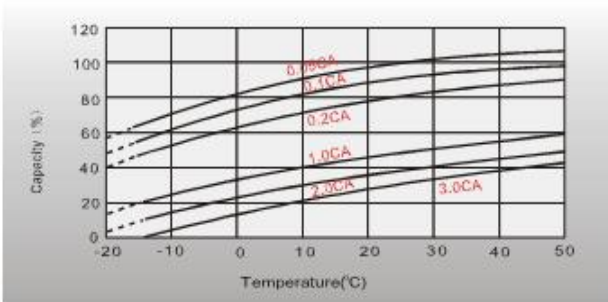
#### Discharge Characteristics



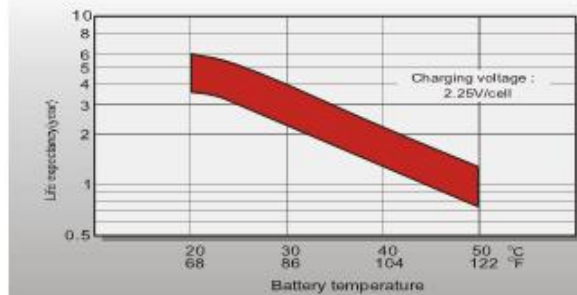
#### Float Charging Characteristics



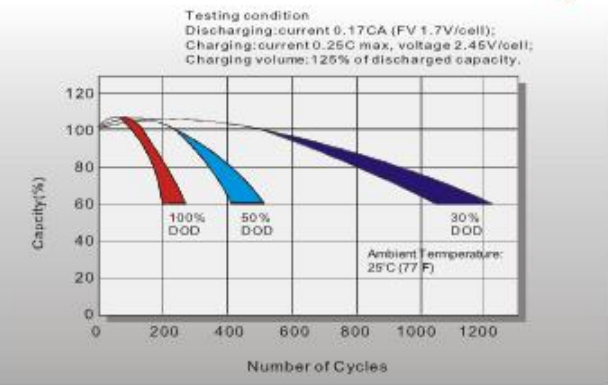
#### Temperature Effects in Relation to Battery Capacity



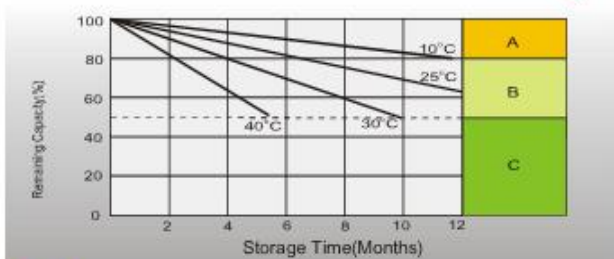
#### Effect of Temperature on Long Term Float Life



#### 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 0.25CA and constant voltage 2.25V/cell.  
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.  
3. Charged for 8-10 hours at limited current 0.05CA.
- C** Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.

Specifications subject to change without prior notice.