



Deep Cycle Lead crystal battery

ECLC12-24-2 (12V 24Ah)

Specifications		
Nominal Voltage	12V	
Nominal Capacity(20 Hr)	24Ah	
Dimension	Length	181±1mm(7.13 inches)
	Width	77±1mm(3.03 inches)
	Containeriner Height	167±1mm(6.57 inches)
	Total Height (With terminal	167±1mm(6.57 inches)
Approx Weight	Approx6.3kgs(13.89 lbs)	
Design life	15 years	
Terminal	M5	
Container Material	ABS	
Rated Capacity	24.0Ah/1.20A	(20hr, 1.80V/Cell, 25 °C/77°F)
	21.8Ah/2.18A	(10hr, 1.80V/Cell, 25 °C/77°F)
	19.0Ah/3.80A	(5hr, 1.75V/Cell, 25 °C/77°F)
	13.3Ah/13.3A	(1hr, 1.60V/Cell, 25 °C/77°F)
Max. Discharge Current	240A(5s)	
Internal Resistance	Appro≤13.2mΩ	
Operating Temp. Range	Discharge: -30 °C~60 °C	
	Charge: -30 °C~60 °C	
	Storage: -30 °C~60 °C	
Nominal Operating Temp. Range	25±3 °C(77±5°F)	
Cycle Use	Initial Charging Current Less than 5.4A. Voltage 14.4V-14.9V at 25 °C(77°F) Temp. Coefficient-20mV/C	
	No limit on Intital Charging Current Voltage 13.6V-13.8V at 25 °C(77°F) Temp. Coefficient-20mV/C	
Standby Use		
Capacity affected by Temperature	40 °C(104°F)	103%
	25 °C(77°F)	100%
	0 °C(32°F)	86%
Self Discharge	ECLC series batteries may be stored for up to 10 months at25 °C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



Application

- ◆ Railway and marine systems
- ◆ Electric tools
- ◆ Vehicle in place of walking
- ◆ Lawn mowers
- ◆ Golf trolleys and golf cart
- ◆ Electric toys
- ◆ Portable power
- ◆ Wheelchairs
- ◆ Medical equipments
- ◆ Solar / wind power system



ISO9001 ISO14001

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

F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h	100h
1.60V	30.9	19.7	14.5	13.3	8.5	6.0	4.0	2.7	2.38	1.27	0.29
1.67V	30.3	19.4	14.2	13.1	8.3	5.8	4.0	2.6	2.33	1.25	0.28
1.70V	29.8	19.0	14.0	12.8	8.2	5.7	3.9	2.6	2.28	1.22	0.28
1.75V	29.2	18.6	13.7	12.6	8.0	5.6	3.8	2.5	2.26	1.20	0.27
1.80V	28.1	17.9	13.2	12.1	7.7	5.4	3.7	2.4	2.18	1.19	0.27

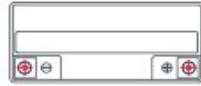
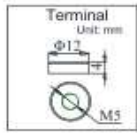
Constant Power Discharge (Watts) at 25 °C (77F)

F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h	100h
1.60V	59.4	38.0	27.9	25.6	16.3	11.4	7.8	5.1	4.6	2.5	0.55
1.67V	58.4	37.3	27.4	25.2	16.0	11.2	7.6	5.0	4.5	2.4	0.54
1.70V	57.3	36.6	26.9	24.7	15.7	11.0	7.5	4.9	4.4	2.4	0.53
1.75V	56.2	35.9	26.4	24.2	15.4	10.8	7.3	4.8	4.3	2.4	0.52
1.80V	54.0	34.5	25.4	23.3	14.8	10.4	7.1	4.7	4.2	2.3	0.51

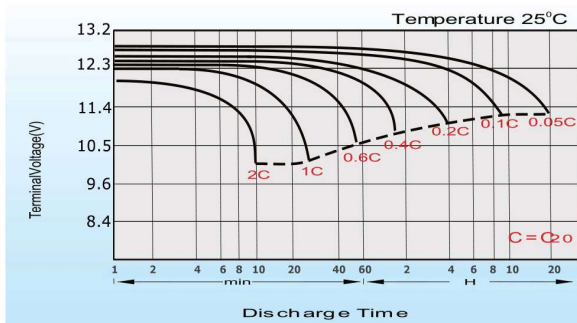
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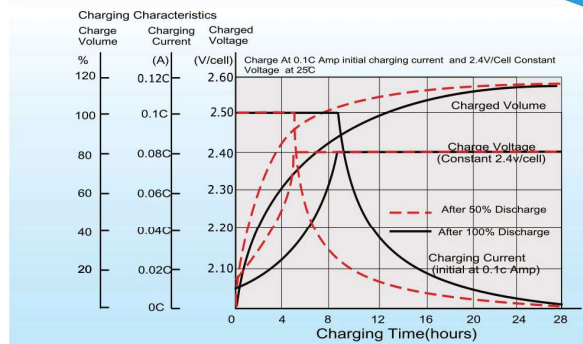
Dimensions



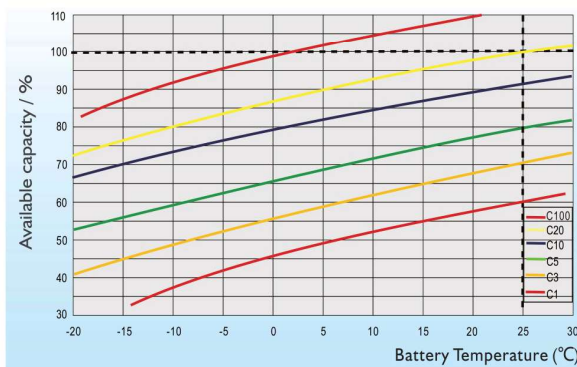
Discharge Characteristics



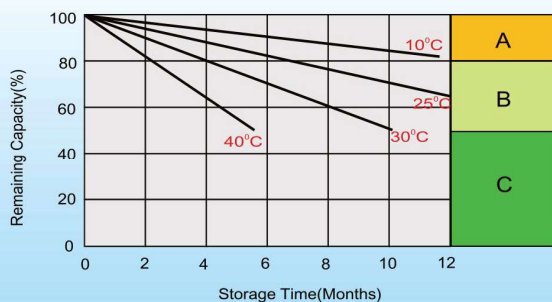
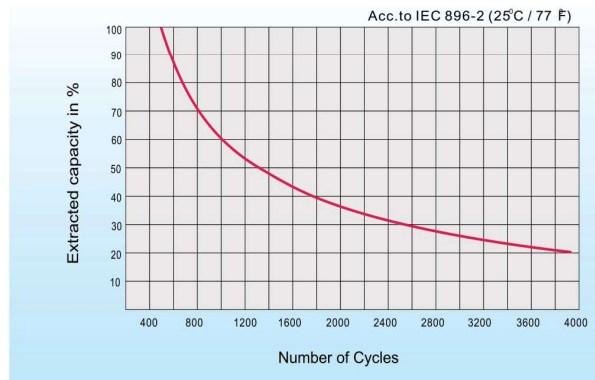
Charging Characteristics



Temperature Effects in Relation to Battery Capacity



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 volatge 2.25V/cell.
 - 2.Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.
 - 3.Charged for 8-10hours 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.