



Lead crystal battery

ECLC12-45 (12V 45Ah)

Specifications

Nominal Voltage	12V	
Nominal Capacity(20 Hr)	45Ah	
Dimension	Length	198±1mm(7.80 inches)
	Width	166±1mm(6.53 inches)
	Containeriner Height	174±1mm(6.85 inches)
	Total Height (With terminal)	174±1mm(6.85 inches)
Approx Weight	Approx14.3kgs(31.53 lbs)	
Design life	18 years	
Terminal	M6	
Container Material	ABS	
Rated Capacity	45.0Ah/2.25A	(20hr, 1.75V/Cell, 25 °C/77°F)
	42.8Ah/4.28A	(10hr, 1.80V/Cell, 25 °C/77°F)
	36.17Ah/7.23A	(5hr, 1.75V/Cell, 25 °C/77°F)
	25.32Ah/25.32A	(1hr, 1.60V/Cell, 25 °C/77°F)
Max. Discharge Current	480A(5s)	
Internal Resistance	Appro≤10.2mΩ	
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 10.8A. Voltage 14.4V-14.9V at 25 °C(77°F) Temp. Coefficient-20mV/C	
Standby Use	No limit on Intital Charging Current Voltage 13.6V-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%
	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.	
Self Discharge		



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 (77°F)

F.V/Time	15 min	30 min	45 min	1h	2h	3h	5h	8h	10h	20h	100h
1.60V	58.28	37.22	27.35	25.18	15.98	11.23	7.61	5.03	4.48	2.40	0.54
1.67V	57.12	36.47	26.80	24.63	15.64	10.98	7.46	4.93	4.38	2.35	0.53
1.70V	55.92	35.72	26.25	24.13	15.33	10.78	7.31	4.83	4.28	2.30	0.52
1.75V	54.77	34.97	25.70	23.63	14.99	10.53	7.16	4.73	4.23	2.25	0.51
1.80V	52.71	33.65	24.73	22.75	14.42	10.14	6.89	4.55	4.10	2.23	0.50

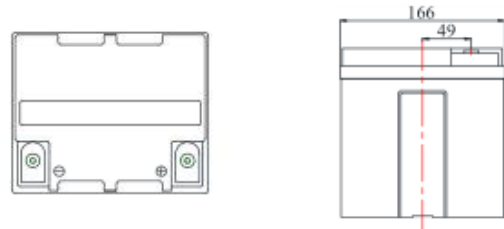
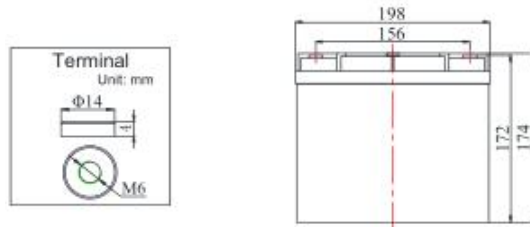
Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	15 min	30 min	45 min	1h	2h	3h	5h	8h	10h	20h	100h
1.60V	112.17	71.64	52.66	48.32	30.70	21.55	14.67	9.65	8.65	4.69	1.05
1.67V	109.91	70.18	51.56	47.36	30.10	21.15	14.37	9.49	8.45	4.56	1.02
1.70V	107.65	68.73	50.51	46.36	29.49	20.70	14.07	9.29	8.30	4.53	1.00
1.75V	105.39	67.28	49.46	45.41	28.85	20.25	13.77	9.09	8.10	4.46	0.98
1.80V	101.45	64.78	47.62	4.28	27.80	19.51	13.29	8.74	7.79	4.32	0.96

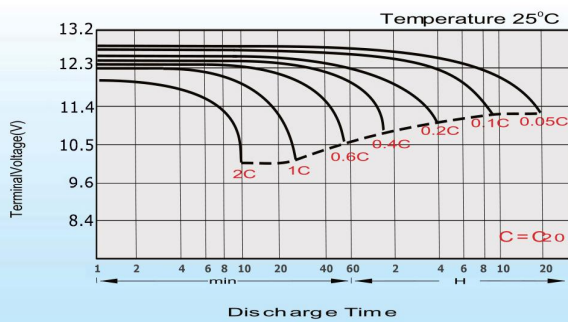
ECLC12-45 (12V 45Ah)



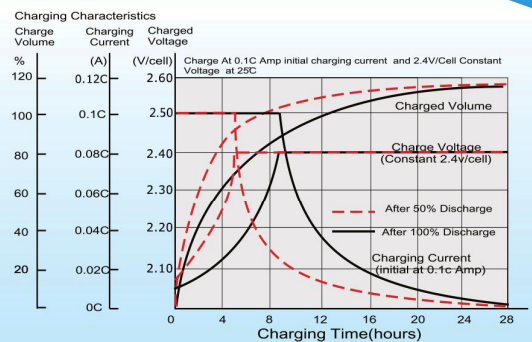
Dimensions



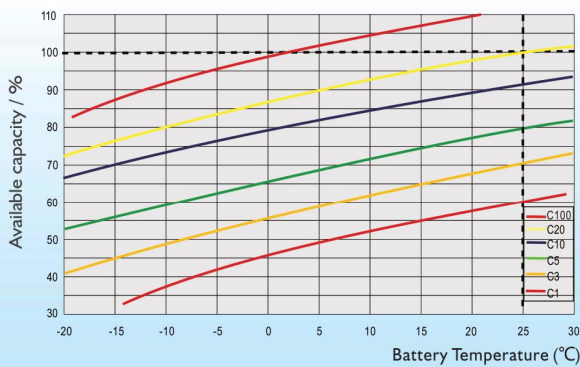
Discharge Characteristics



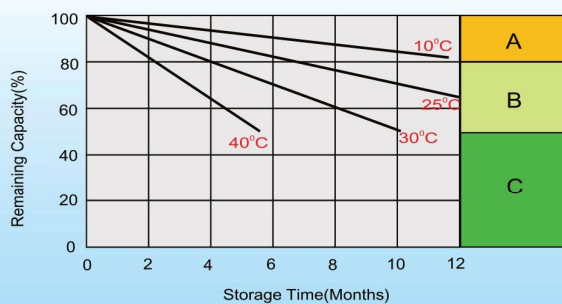
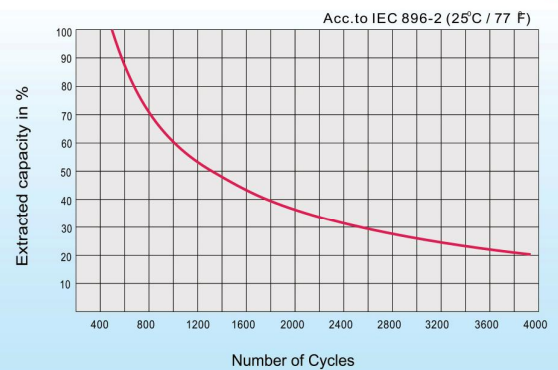
Charging Characteristics



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:
 - Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
 - Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
 - 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.