

## ELC6-4.5 (6V 4.5Ah)

### Specifications

Nominal Voltage	6V	
Nominal Capacity(20 Hr)	4.5Ah	
Dimension	Length	70±2mm( 2.76 inches)
	Width	47±1mm( 1.85 inches)
	Containeriner Height	101±1mm( 3.98 inches)
	Total Height (With terminal)	107±1mm( 4.21 inches)
Approx Weight	Approx0.75kgs( 1.65 lbs)	
Design life	5 years	
Terminal	F1	
Container Material	ABS	
Rated Capacity	4.5Ah/0.225A	(20hr, 1.75V/Cell, 25 °C/77°F)
	4.2Ah/0.42A	(10hr, 1.80V/Cell, 25 °C/77°F)
	4.0Ah/0.80A	(5hr, 1.75V/Cell, 25 °C/77°F)
	2.94Ah/2.94A	(1hr, 1.60V/Cell, 25 °C/77°F)
Max. Discharge Current	67.5A(5s)	
Internal Resistance	Appro≤18.0mΩ	
Operating Temp. Range	Discharge: -20 °C~50 °C	
	Charge: -20 °C~50 °C	
	Storage: -20 °C~50 °C	
Nominal Operating Temp. Range	25±3 °C(77±5°F)	
Cycle Use	Initial Charging Current Less than 1.35A. Voltage 7.2V-7.45V at 25 °C(77°F) Temp. Coefficient-20mV/C	
	No limit on Intital Charging Current Voltage 6.8V-6.9V 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	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.	



### Application

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

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

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	17.96	11.78	8.65	5.13	3.74	2.94	1.86	1.27	0.85	0.57	0.45	0.238
1.67V	17.11	11.29	8.46	5.05	3.68	2.84	1.83	1.25	0.84	0.56	0.44	0.233
1.70V	16.39	10.67	8.34	4.98	3.64	2.75	1.79	1.23	0.82	0.55	0.44	0.230
1.75V	15.62	10.18	7.90	4.82	3.54	2.67	1.76	1.20	0.80	0.54	0.43	0.225
1.80V	14.43	9.48	7.37	4.62	3.42	2.59	1.69	1.16	0.77	0.53	0.42	0.222

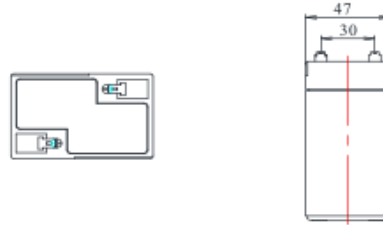
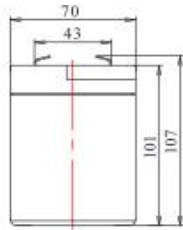
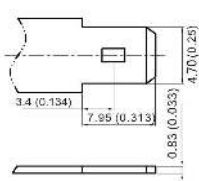
### Constant Power Discharge (Watts) at 25 °C ( 77F )

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	33.45	22.60	16.71	9.98	7.30	5.78	3.65	2.51	1.68	1.14	0.90	0.474
1.67V	32.05	21.69	16.39	9.84	7.21	5.58	3.58	2.46	1.65	1.12	0.89	0.467
1.70V	30.74	20.51	16.21	9.73	7.14	5.38	3.51	2.42	1.62	1.10	0.89	0.462
1.75V	29.44	19.59	15.38	9.44	6.96	5.18	3.45	2.37	1.59	1.09	0.87	0.452
1.80V	27.45	18.32	14.37	9.09	6.75	4.98	3.31	2.28	1.53	1.07	0.86	0.450

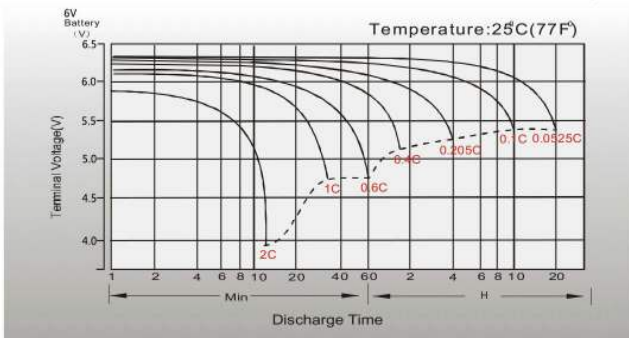
# ELC6-4.5 (6V 4.5Ah)

## Dimensions

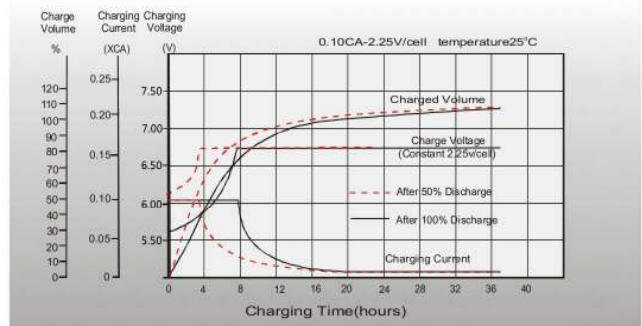
F1 Terminal  
Unit: mm [inches]



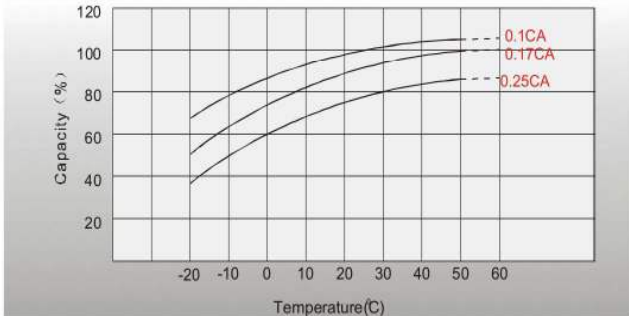
## Discharge Characteristics



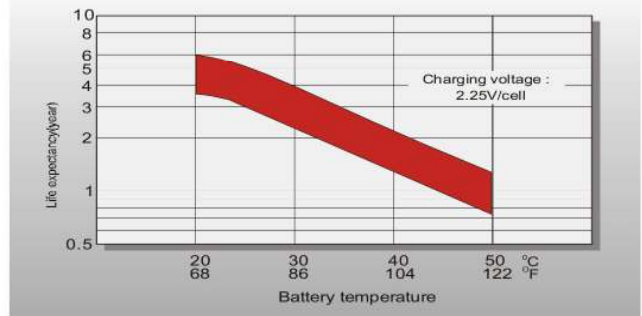
## Float Charging Characteristics



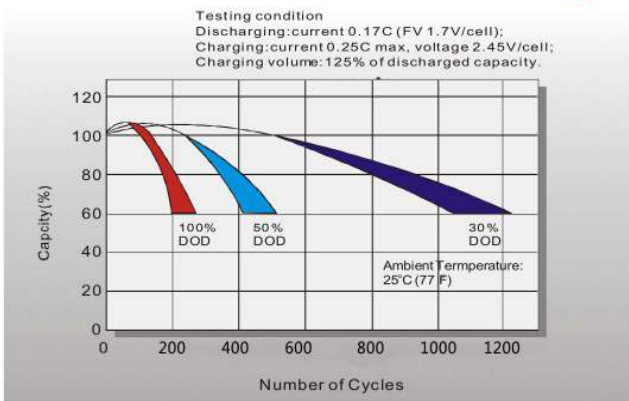
## Temperature Effects in Relation to Battery Capacity



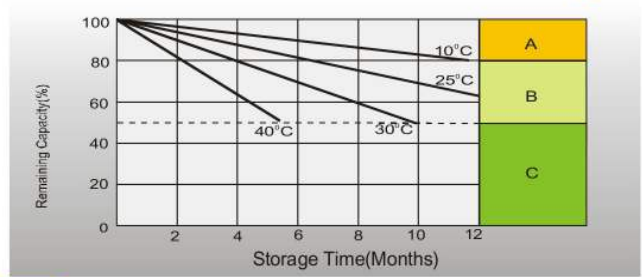
## Effect of Temperature on Long Term Float Life



## 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.