

ELC12-18 (12V 18Ah)

Specifications

Nominal Voltage	12V	
Nominal Capacity(20 Hr)	18Ah	
Dimension	Length	181±1mm(7.13 inches)
	Width	77±1mm(3.03 inches)
	Containeriner Height	167±1mm(6.57 inches)
	Total Height	167±1mm(6.57 inches)
	Approx Weight	Approx5.18kgs(11.42 lbs)
Design life	5 years	
Terminal	M5	
Container Material	ABS	
Rated Capacity	18.0Ah/0.90A	(20hr, 1.80V/Cell, 25 °C/77°F)
	16.9Ah/1.69A	(10hr, 1.80V/Cell, 25 °C/77°F)
	16.1Ah/3.21A	(5hr, 1.75V/Cell, 25 °C/77°F)
	11.8Ah/11.80A	(1hr, 1.60V/Cell, 25 °C/77°F)
Max. Discharge Current	270A(5s)	
Internal Resistance	Appro≤22.0mΩ	
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 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.	



Application

- ◆ 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 (77F)

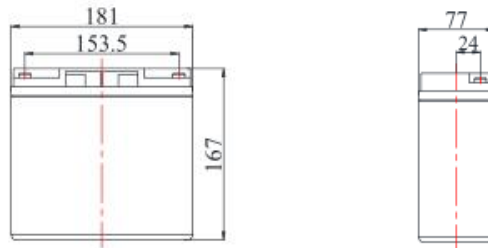
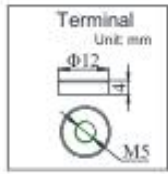
F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	71.85	47.11	34.59	20.53	14.97	11.75	7.43	5.09	3.39	2.28	1.80	0.951
1.67V	68.44	45.15	33.84	20.19	14.73	11.37	7.30	4.99	3.34	2.23	1.78	0.933
1.70V	65.57	42.69	33.38	19.92	14.54	11.01	7.15	4.91	3.27	2.19	1.75	0.918
1.75V	62.50	40.71	31.60	19.26	14.16	10.67	7.02	4.81	3.21	2.17	1.72	0.900
1.80V	57.71	37.92	29.49	18.49	13.69	10.36	6.76	4.63	3.09	2.11	1.69	0.890

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

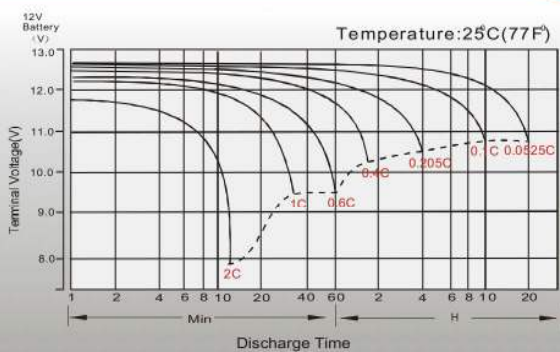
F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	133.79	90.41	66.86	39.93	29.21	23.12	14.58	10.04	6.73	4.54	3.61	1.898
1.67V	128.21	86.75	65.57	39.37	28.83	22.32	14.32	9.86	6.59	4.48	3.58	1.869
1.70V	122.94	82.05	64.83	38.93	28.54	21.52	14.06	9.67	6.49	4.41	3.55	1.846
1.75V	117.77	78.34	61.51	37.75	27.85	20.73	13.80	9.49	6.36	4.38	3.49	1.808
1.80V	109.80	73.27	57.50	36.36	27.00	19.93	13.25	9.12	6.12	4.26	3.45	1.800

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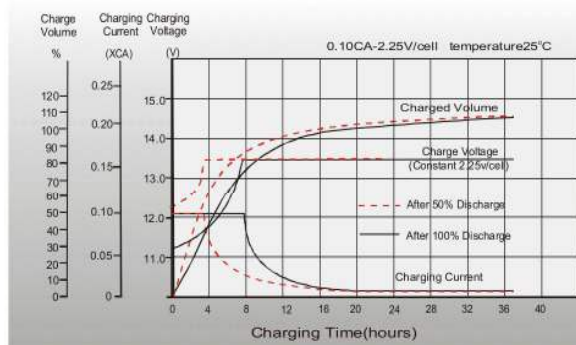
Dimensions



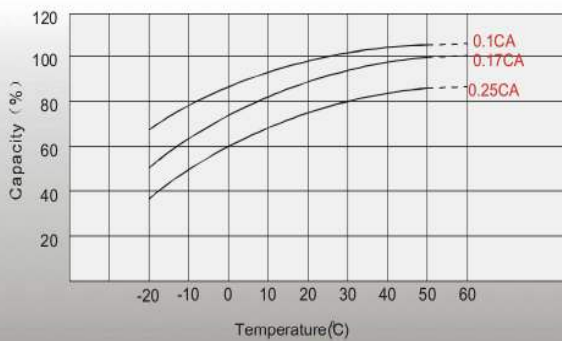
Discharge Characteristics



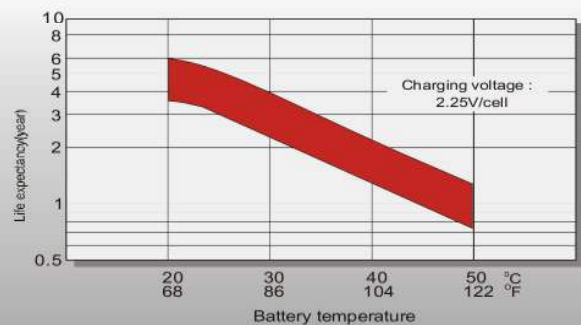
Float Charging Characteristics



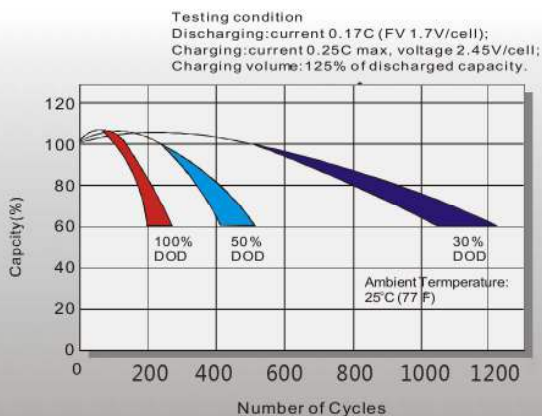
Temperature Effects in Relation to Battery Capacity



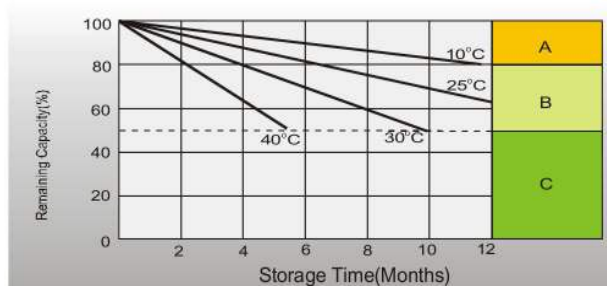
Effect of Temperature on Long Term Float Life



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.