

EDC12-40 (12V 45Ah)

Specifications

Nominal Voltage	12V	
Nominal Capacity(20 Hr)	45Ah	
Dimension	Length	198±1mm(7.80 inches)
	Width	166±1mm(6.54 inches)
	Containeriner Height	174±1mm(6.85 inches)
	Total Height (With terminal)	174±1mm(6.85 inches)
Approx Weight	Approx 14.2 kgs(31.31 lbs)	
Design life	12 years	
Terminal	M6	
Container Material	ABS	
Rated Capacity	45.0Ah/2.25A	(20hr, 1.75V/Cell, 25 °C/77°F)
	40.5Ah/4.05A	(10hr, 1.80V/Cell, 25 °C/77°F)
	35.0Ah/7.00A	(5hr, 1.75V/Cell, 25 °C/77°F)
	22.0Ah/22.0A	(1hr, 1.60V/Cell, 25 °C/77°F)
Max. Discharge Current	450A(5s)	
Internal Resistance	Appro≤10.6mΩ	
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 10.5A. Voltage 14.4V-15.0V at 25 °C(77°F) Temp. Coefficient-20mV/C	
Standby Use	No limit on Intital Charging Current Voltage 13.5V-13.8V at 25 °C(77°F) Temp. Coefficient-20mV/C	
Capacity affected by Temperature	40 °C(104°F)	102%
	25 °C(77°F)	100%
	0 °C(32°F)	85%
Self Discharge	EDC 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 (77°F)

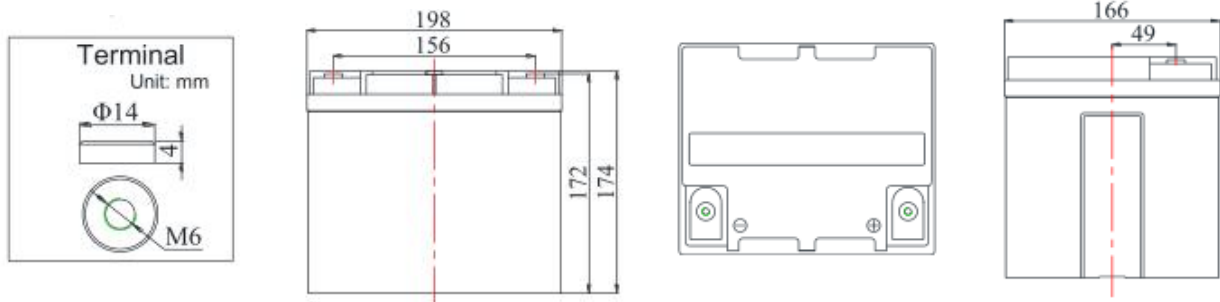
F.V/Time	15min	30min	45min	1h	2h	3h	5h	6h	8h	10h	20h
1.60V	75.8	44.6	33.8	26.8	15.8	11.6	7.8	6.8	5.3	4.4	2.33
1.67V	71.6	42.3	32.5	26.0	15.2	11.2	7.7	6.7	5.3	4.3	2.31
1.70V	67.2	41.1	31.3	25.0	14.8	10.9	7.5	6.6	5.2	4.3	2.28
1.75V	63.0	39.3	29.9	24.0	14.4	10.7	7.4	6.4	5.1	4.2	2.25
1.80V	59.1	37.8	28.9	23.1	13.9	10.3	7.2	6.3	5.0	4.2	2.23

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

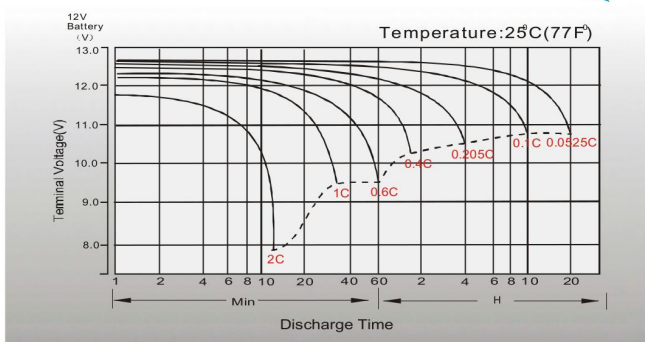
F.V/Time	15min	30min	45min	1h	2h	3h	5h	6h	8h	10h	20h
1.60V	144.9	88.7	64.2	51.4	29.9	22.1	15.1	13.1	10.4	8.6	4.6
1.67V	138.7	83.1	62.0	50.0	29.1	21.5	14.8	12.9	10.3	8.5	4.6
1.70V	129.2	81.3	60.1	48.3	28.4	21.0	14.6	12.8	10.2	8.4	4.5
1.75V	121.3	77.4	57.7	46.5	27.7	20.6	14.4	12.6	10.1	8.4	4.5
1.80V	113.8	74.3	55.7	45.0	26.8	20.0	14.1	12.3	10.0	8.3	4.4

EDC12-40 (12V 45Ah)

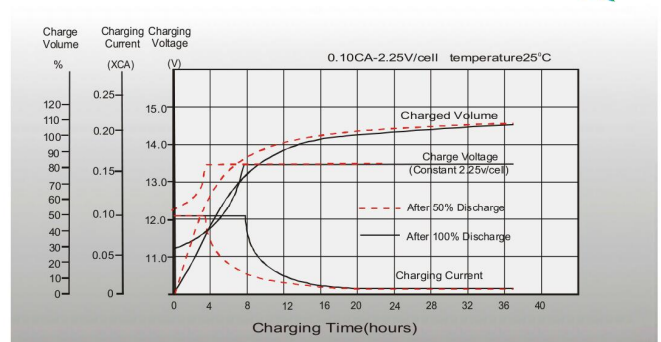
Dimensions



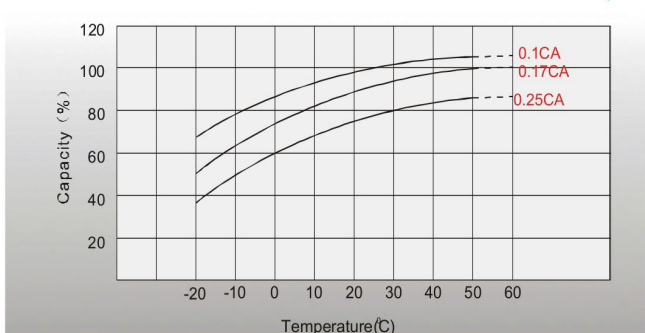
Discharge Characteristics



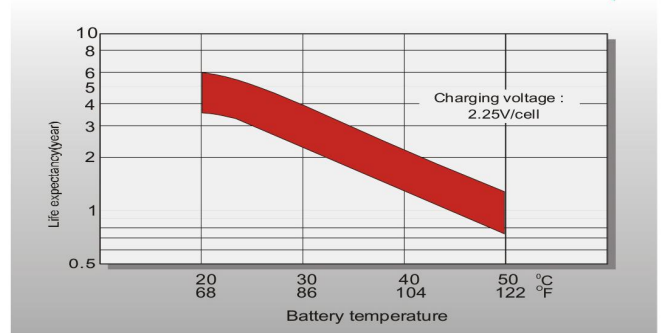
Float Charging Characteristics



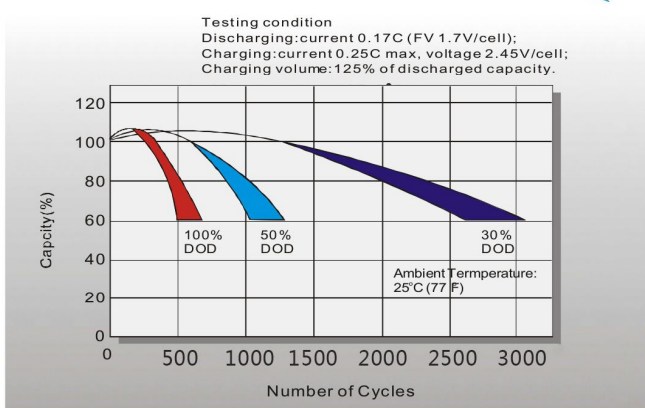
Temperature Effects in Relation to Battery Capacity



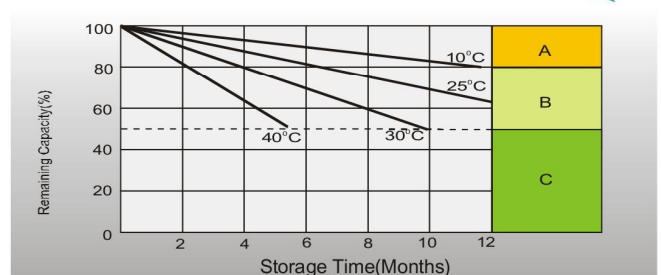
Effect of Temperature on Long Term Float Life



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.

Specifications subject to change without prior notice.