

## EDC12-20 (12V 20Ah)

### Specifications

Nominal Voltage	12V		
Nominal Capacity(20 Hr)	20Ah		
Dimension	Length	181±1mm( 7.13 inches)	
	Width	77±1mm( 3.03 inches)	
	Containeriner Height	167±1mm( 6.58 inches)	
	Total Height (With terminal)	167±1mm( 6.58 inches)	
	Approx Weight	Approx 6 kgs( 13.23 lbs)	
Design life	8 years		
Terminal	M5		
Container Material	ABS		
Rated Capacity	20.0Ah/1.00A	(20hr, 1.75V/Cell, 25 °C/77°F)	
	18.8Ah/1.88A	(10hr, 1.80V/Cell, 25 °C/77°F)	
	17.0Ah/3.40A	(5hr, 1.75V/Cell, 25 °C/77°F)	
	13.06Ah/13.06A	(1hr, 1.60V/Cell, 25 °C/77°F)	
Max. Discharge Current	300A(5s)		
Internal Resistance	Appro≤13.5mΩ		
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 5.40A. 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 securitysystem
- ◆ Electronic apparatus & equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto controlsystem

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

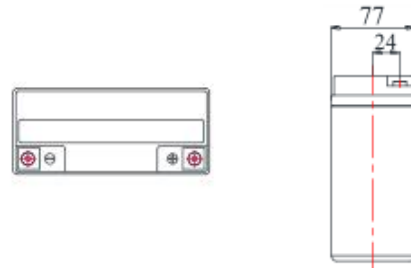
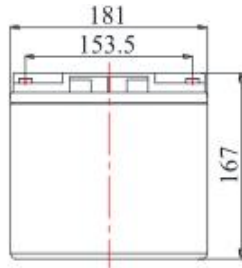
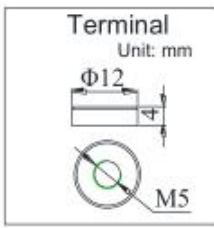
F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	82.9	52.3	38.4	22.81	16.63	13.06	8.26	5.66	3.77	2.53	2.00	1.057
1.67V	78.5	50.2	37.6	22.43	16.36	12.63	8.11	5.54	3.71	2.48	1.97	1.037
1.70V	74.3	47.4	37.1	22.13	16.16	12.23	7.94	5.46	3.63	2.43	1.95	1.020
1.75V	70.9	45.2	35.1	21.40	15.73	11.86	7.80	5.34	3.57	2.41	1.91	1.000
1.80V	65.4	42.1	32.8	20.54	15.21	11.51	7.51	5.14	3.43	2.34	1.88	0.989

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

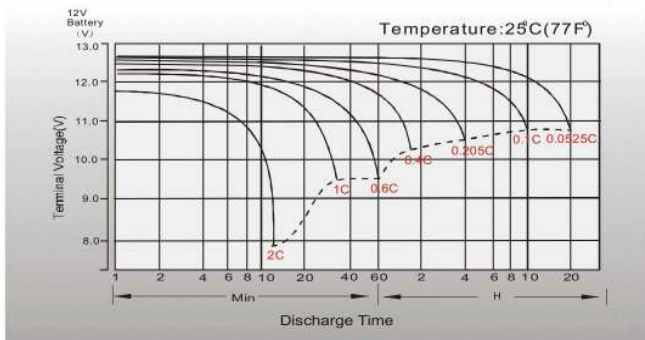
F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	148.66	100.46	74.29	44.37	32.46	25.69	16.20	11.16	7.47	5.05	4.01	2.109
1.67V	142.46	96.39	72.86	43.74	32.03	24.80	15.91	10.95	7.33	4.98	3.98	2.077
1.70V	136.60	91.17	72.03	43.26	31.71	23.91	15.62	10.75	7.21	4.90	3.95	2.051
1.75V	130.86	87.04	68.34	41.94	30.94	23.03	15.33	10.54	7.06	4.86	3.88	2.009
1.80V	122.00	81.41	63.89	40.40	30.00	22.14	14.72	10.13	6.80	4.73	3.84	2.000

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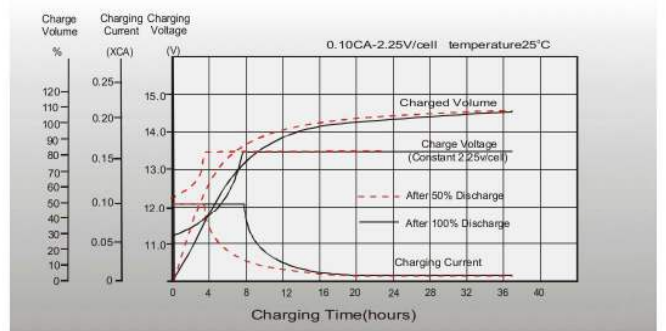
## Dimensions



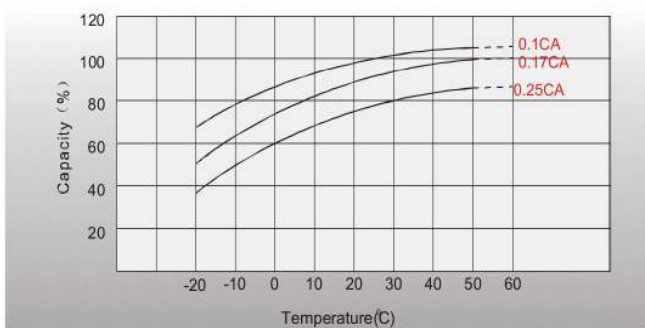
## Discharge Characteristics



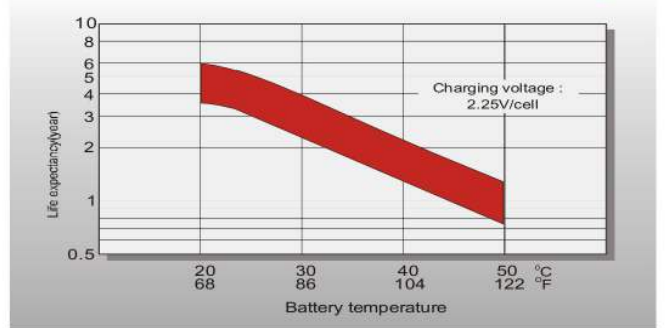
## Float Charging Characteristics



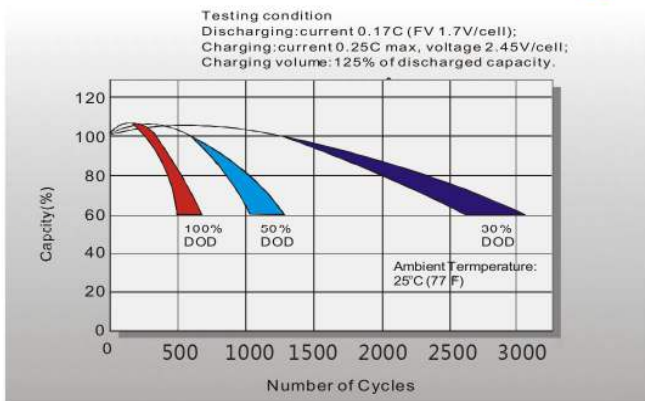
## Temperature Effects in Relation to Battery Capacity



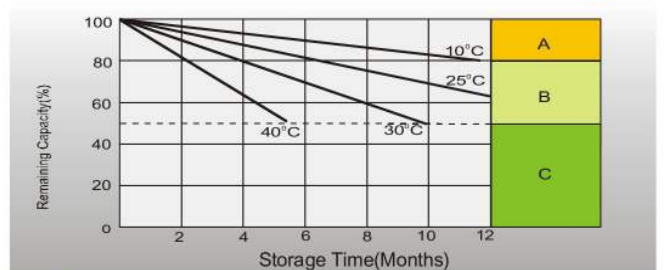
## Effect of Temperature on Long Term Float Life



## 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.

Specifications subject to change without prior notice.