

### Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	21.0AH	
Dimension	Length	181.5±1mm (7.14 inches)
	Width	77±1mm (3.03 inches)
	Container Height	167.5±1mm (6.59 inches)
	Total Height (with Terminal)	167.5±1mm (6.59inches)
	Approx Weight	Approx 6.0 kg (13.23lbs)
Terminal	T12	
Container Material	ABS	
Rated Capacity	21.0 AH/1.05A	(20hr , 1.80V/cell, 25°C/77°F)
	19.5 AH/1.95A	(10hr, 1.80V/cell, 25°C/77°F)
	17.8 AH/3.57A	(5hr, 1.75V/cell, 25°C/77°F)
	16.1 AH/5.36A	(3hr, 1.75V/cell, 25°C/77°F)
	13.2 AH/13.2A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	300A (5s)	
Internal Resistance	Approx 15mΩ	
Operating Temp. Range	Discharge	-15~50°C (5~122°F)
	Charge	0~40°C (32~104°F)
	Storage	-15~40°C (5~104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 6.0A. Voltage	
	14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	No limit on Initial Charging Current Voltage	
	13.5V~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%
Self Discharge	Leoch DZM series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



### Applications

- ◆ 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 and equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto control system



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

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	40.0	30.7	25.4	22.0	17.0	12.5	10.6	6.25	4.89	3.97	3.24	2.81	2.27	1.89	1.04
1.80V/cell	53.7	39.2	30.7	26.0	20.1	14.6	11.8	6.82	5.26	4.24	3.48	3.02	2.40	1.95	1.05
1.75V/cell	60.5	43.1	33.6	28.0	20.8	15.1	12.4	7.07	5.36	4.34	3.57	3.10	2.45	2.01	1.06
1.70V/cell	66.6	47.0	35.8	29.4	21.7	15.7	12.8	7.25	5.50	4.45	3.66	3.16	2.48	2.05	1.08
1.65V/cell	73.5	50.7	38.1	31.2	22.9	16.1	13.1	7.35	5.74	4.61	3.76	3.23	2.52	2.09	1.09
1.60V/cell	81.1	55.1	40.8	33.3	24.2	16.8	13.2	7.67	5.91	4.75	3.89	3.30	2.54	2.11	1.10

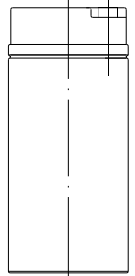
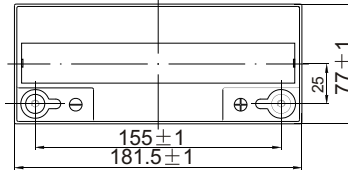
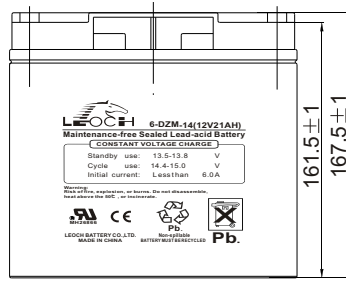
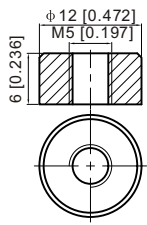
### Constant Power Discharge (Watts) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	73.1	56.7	47.5	41.5	32.4	24.1	20.4	12.1	9.53	7.77	6.35	5.53	4.48	3.75	2.06
1.80V/cell	97.1	71.6	56.6	48.3	37.7	27.8	22.7	13.1	10.2	8.25	6.79	5.90	4.73	3.86	2.08
1.75V/cell	107.2	77.5	61.0	51.5	38.8	28.6	23.6	13.6	10.3	8.40	6.94	6.05	4.80	3.96	2.10
1.70V/cell	114.7	82.5	64.3	53.7	40.1	29.6	24.3	13.9	10.6	8.61	7.11	6.16	4.87	4.03	2.13
1.65V/cell	124.7	88.2	67.8	56.6	42.0	30.1	24.7	14.0	11.0	8.87	7.28	6.28	4.93	4.11	2.16
1.60V/cell	134.4	93.6	71.3	59.6	44.0	31.2	24.8	14.5	11.3	9.13	7.49	6.39	4.97	4.15	2.17

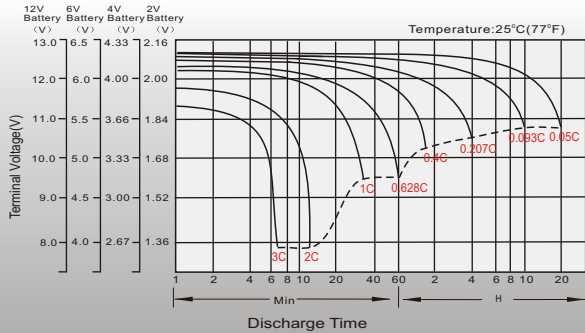
# Dimensions

## T12 Terminal

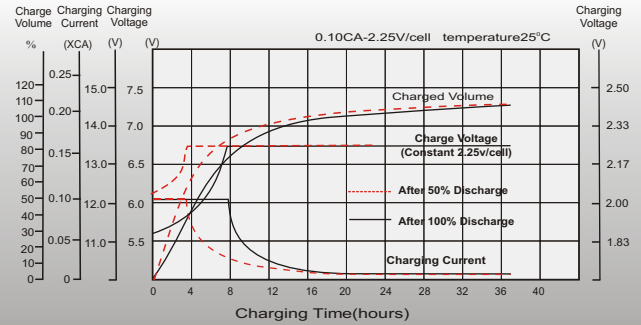
Unit: mm [inches]



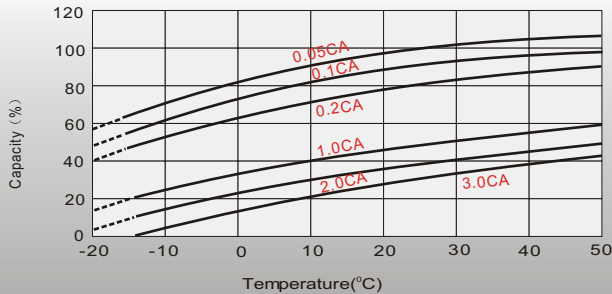
## Discharge Characteristics



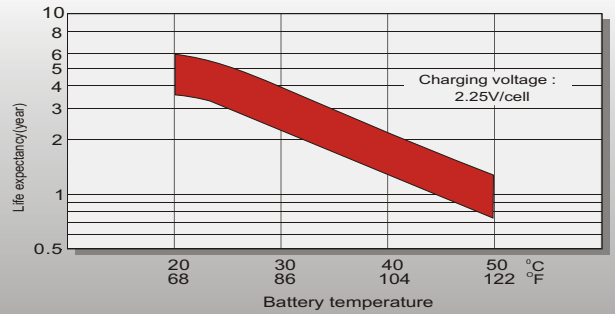
## Float Charging Characteristics



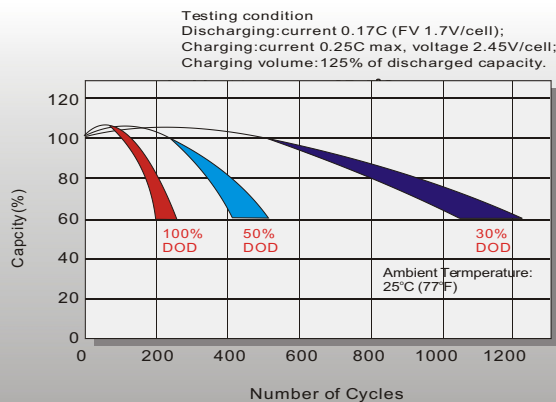
## Temperature Effects in Relation to Batter Capacity



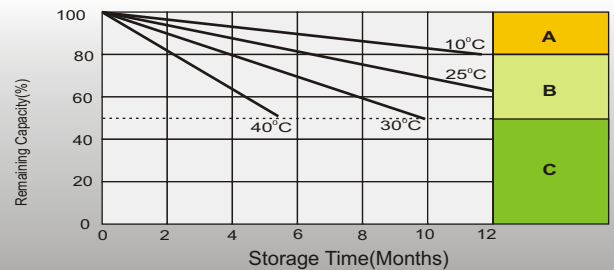
## Effect of Temperature on Long Term Float Life



## 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 volatge 2.25V/cell.  
2. Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.  
3. Charged for 8-10hours 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.

## Sales Office

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