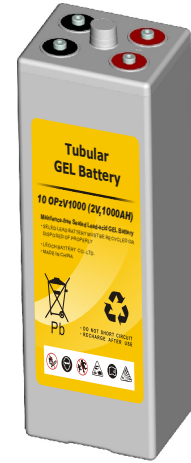


# Tubular Gel Battery

## 10 OPzV1000 (2V1000AH)

### Specification

Nominal Voltage	2V	
Capacity	1000.0Ah@10hr to 1.80V/cell	
Dimension	Length	233±2mm (9.17 inches)
	Width	210±3mm (8.27 inches)
	Container Height	646±3mm (25.4 inches)
	Total Height (with Terminal)	681±3mm (26.8 inches)
Approx Weight	Approx 78.5 kg (173.1lbs)	
Container Material	ABS	
Rated Capacity	1000 AH/100.0A	(10hr, 1.80V/cell, 20°C/68°F)
	865 AH/173A	(5hr, 1.75V/cell, 20°C/68°F)
	762 AH/254A	(3hr, 1.75V/cell, 20°C/68°F)
	568 AH/568A	(1hr, 1.60V/cell, 20°C/68°F)
Max. Discharge Current	8000A (5s)	
Internal Resistance	Approx 0.45mΩ	
Operating Temp. Range	Discharge	-20~55°C (-4~131°F)
	Charge	0~40°C (32~104°F)
	Storage	-20~50°C (-4~122°F)
Cycle Use	Initial Charging Current less than 250.0A. Voltage 2.40V~2.50V at 20°C(68°F)Temp. Coefficient -5mV/°C	
	No limit on Initial Charging Current Voltage 2.25V~2.30V at 20°C(68°F)Temp. Coefficient -3mV/°C	
Standby Use	2.25V~2.30V at 20°C(68°F)Temp. Coefficient -3mV/°C	
Self-discharge	<2% pre month @ 20°C(68°F)	



### Applications

- ◆ Solar energy, wind energy
- ◆ Electric power, nuclear power
- ◆ Communication
- ◆ Ship, maritime affairs
- ◆ UPS, medical facilities and emergency lighting
- ◆ Situation with high environmental protection and energy-saving
- ◆ Better safety performance and reliability
- ◆ Designed service life of 20 years

### Main Technical Advantages

- ◆ Plate: positive plate adopts tubular plate which can prevent active material falling, and adopts multi-component alloy frame. have fine corrosion-resisting performance and long service life. Negative plate adopts special radiated structure.
- ◆ Separator: adopt special micro-pore PVC-SiO<sub>2</sub> separator from Europe AMER-SIL Company, separator have big porosity and low resistance.
- ◆ Electrolyte: adopts Germany gas silicon dioxide, electrolyte in gel state in the battery without flowing, leakage and lamination can be avoided.
- ◆ Safety valve: adopt Germany technology, constant opening and closing, accumulator case expansion, damage and electrolyte dry up can be avoided.

### Constant Current Discharge (Amperes) at 20 °C (68 °F)

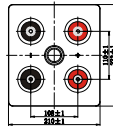
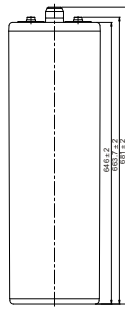
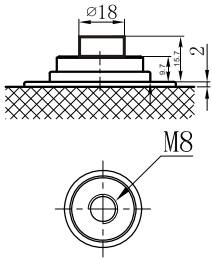
F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.85V/cell	682	648	558	445	295	228	157	110	93.7
1.80V/cell	839	784	650	502	324	249	169	118	100
1.75V/cell	992	877	693	522	333	254	173	119	102
1.70V/cell	1113	957	733	542	342	259	175	121	103
1.65V/cell	1196	1011	763	558	349	264	178	122	104
1.60V/cell	1251	1047	782	568	354	267	180	123	105

### Constant Power Discharge (Watts) at 20 °C (68 °F)

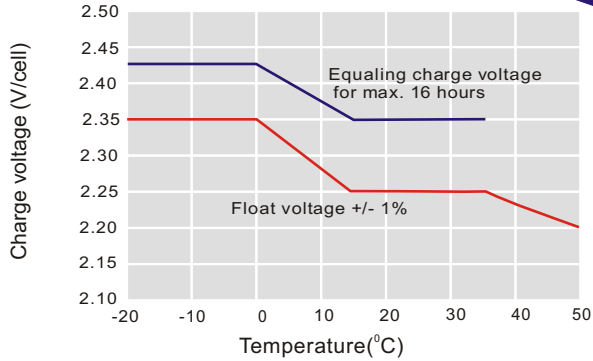
F.V/Time	10min	15min	30min	1h	2h	3h	5h	8h	10h
1.85V/cell	1268	1217	1066	862	574	446	309	217	186
1.80V/cell	1532	1452	1230	964	627	483	332	232	199
1.75V/cell	1782	1603	1298	997	641	492	337	236	201
1.70V/cell	1964	1724	1360	1029	654	500	341	238	203
1.65V/cell	2071	1793	1400	1051	665	507	345	241	205
1.60V/cell	2126	1830	1421	1062	670	511	347	242	206

# Dimensions

## Terminal

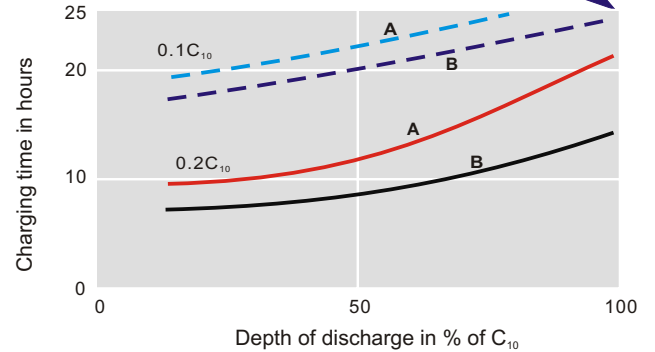


## Discharge Characteristics



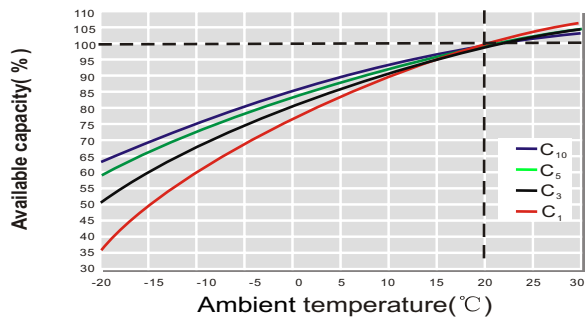
For continuous charging we recommend a voltage of 2.25 V. The charging voltage must be compensated to the curve for continuously different battery ambient temperature.

## Charging Characteristics

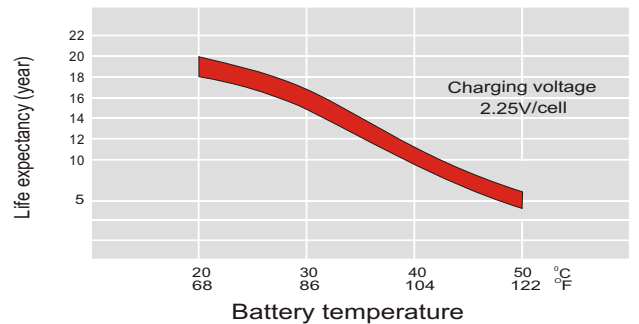


Charge voltage:  
 A—2.25 V/cell      B—2.40 V/cell  
 - - - State of charge 100 %      - - - State of charge 90 %

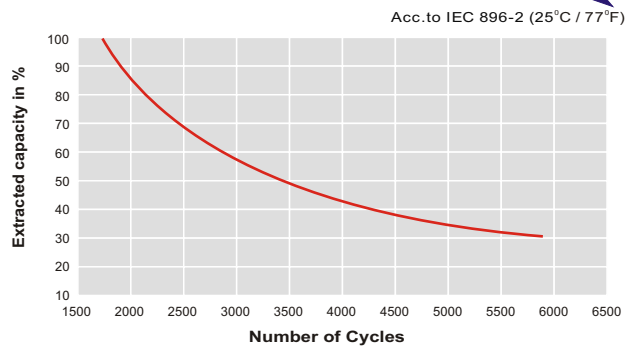
## Temperature Effects in Relation to Battery Capacity



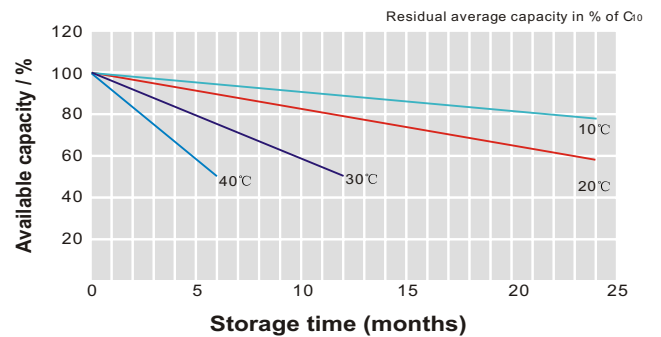
## Effect of Temperature on Long Term Float Life



## Cycle Life in Relation to Depth of Discharge



## General Relation of Capacity VS. Storage Time



## Sales Office

### China sales office:

Add: 5th Floor, Xinbaohui Bldg., Nanshan Blvd.,  
 Nanshan, Shenzhen, China. 518052  
 Tel: +86-755-86036060 (100 lines)  
 Fax: +86-755-26067269  
 E-mail: export@leoch.com

### North America sales office:

Add: 19751 Descartes, Unit A,  
 Foothill Ranch, CA 92610, USA  
 Tel: 949-588-5853  
 Fax: 949-588-5966  
 E-mail: sales@leoch.us

### Europe sales office:

Add: 12C Wheatstone Park, Waterwells  
 Business Park, Gloucester, GL2 2AQ. UK.  
 Tel: +44(0) 1452 751016  
 Fax: +44 (0)1452-690125  
 E-mail: Sales.Europe@leoch.com