

# 10 OPzV1000 (2V1000AH)

## Applications

- ◆ Telecom application (indoor or outdoor BTS)
- ◆ Solar System
- ◆ Wind system
- ◆ Hybrid solution



## Design

- ◆ Positive plate: Tubular plate, adopts multi-component alloy frame
- ◆ negative plate: special radiated structure
- ◆ Electrolyte: sulphuric acid fixed as GEL by fumed silica
- ◆ Separator: special microporous PVC-SiO<sub>2</sub> separator
- ◆ Safety valve: valve with flame arrestor

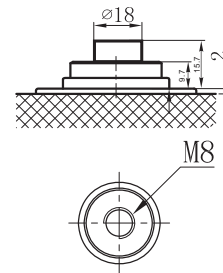
## Features

- ◆ Long life: 20 years design life
- ◆ Good deep discharge resilience performance
- ◆ Special plate design, long cycle lifetime
- ◆ High thermal capacity, reduce the risk of thermal out of control and drying hard, can be used in bad environment
- ◆ Flame retardant container UL94-V0

### Terminal

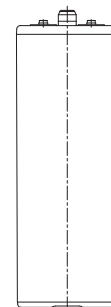
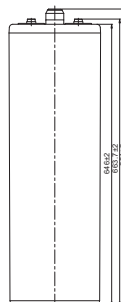
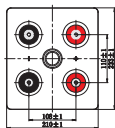
Terminal Model:

Unit: mm



### Layout

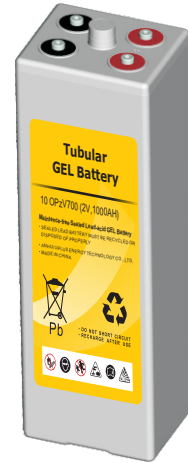
Unit: mm



## Tubular GEL Battery-OPzV Series

### Specification

Nominal Voltage	2V	
Rated Capacity (Ah)	1000.0 AH/100.0A	(10hr, 1.80V/cell, 25°C)
	762.0 AH/254.0A	(3hr, 1.75V/cell, 25°C)
	568.0 AH/568.0A	(1hr, 1.60V/cell, 25°C)
Dimension	Length	233 ± 2mm
	Width	210 ± 2mm
	Container Height	646 ± 2mm
	Total Height	681 ± 2mm
Approx Weight	Approx 78.5 kg	
Terminal	Material: Copper	
Container Material	ABS	
Max. Discharge Current	8000A (5s)	
Internal Resistance	Approx 0.45mΩ	
Operating Temp. Range	Discharge: -20~55°C Charge: 0~40°C Storage: -20~50°C	
Capacity Affected by Temperature	40°C	103%
	25°C	100%
	0°C	86%
Cycle Use	Initial Charging Current less than 250.0A.	
	Voltage: 2.4V at 25°C	Temp. coefficient -5mV/°C
Standby Use	Equalization voltage: 2.35V at 25°C	Temp. coefficient -3mV/°C
	Float voltage: 2.25V at 25°C	Temp. coefficient -3mV/°C
Self Discharge	<2% per month @ 25°C.	



ISO9001



ISO14001

### Performance

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

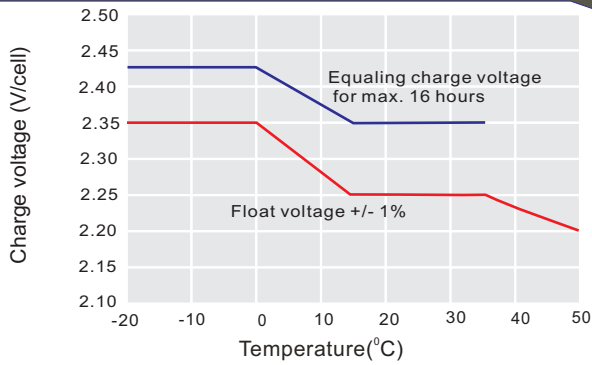
#### Constant Power Discharge (Watts/cell) at 25 °C (77°F)

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

**Tubular GEL Battery-OPzV Series**

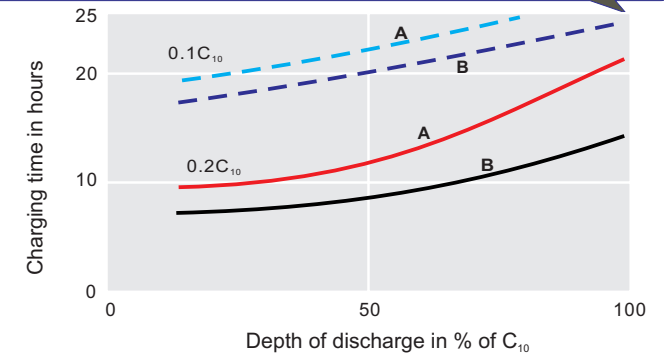
**Characteristic Curve**

**Discharge Characteristics**



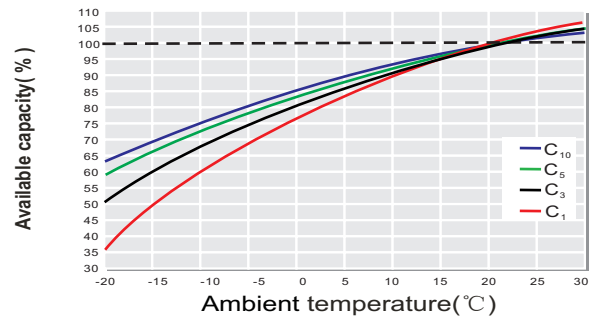
For continuous charging we recommend a voltage of 2.25 V. The charging voltage must be compensated to the curve for acotinuously different battery ambient temperature.

**Charging Characteristics**

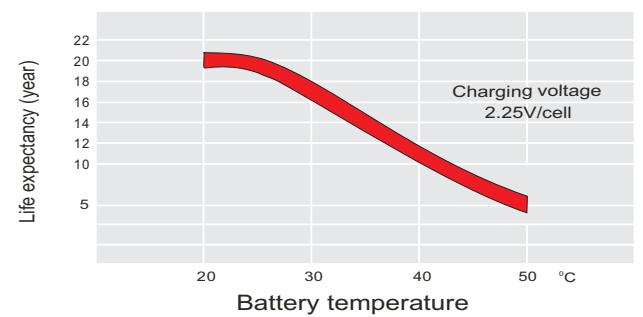


Charge voltage:  
A—2.25 V/cell      B—2.40 V/cell  
--- State of charge 100 %      — State of charge 90 %

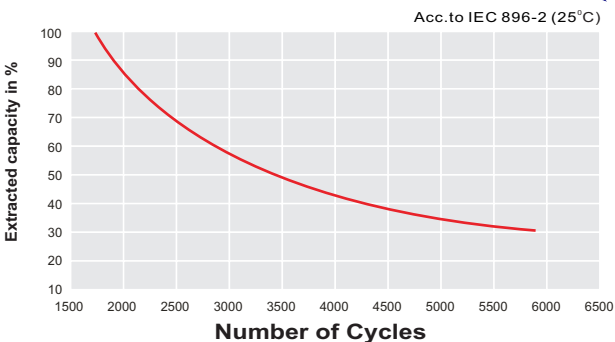
**Temperature Effects in Relation to Battery Capacity**



**Effect of Temperature on Long Term Float Life**



**Cycle Life in Relation to Depth of Discharge**



**General Relation of Capacity VS. Storage Time**

