



OPzV Series Tubular GEL Battery

OPzV1000

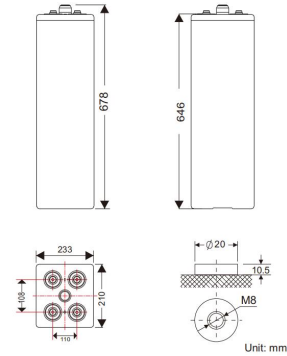
General Features

- ▶ 20 years design life
- ▶ adopt tubular plate with GEL technology
- ▶ Gas phase SiO₂ colloidal battery technology
- ▶ PVC-SiO₂ partition
- ▶ ABS material battery case
- ▶ Widely used in communication systems, military fields, power systems, broadcasting and television systems, etc



Specification	
Rated Voltage	2V
Nominal Capacity(C10, 1.80V/cell)	1000Ah
Terminal	M8
Approx. Weight	72.5±3% kg(159.8lbs)
Container Material	ABS
short-circuit current	5000A
Internal resistance(25°C:)	Approx 0.40 mΩ
Nominal Operating Temp. Range	25±5°C (77±5°F)
Self discharge	≤3%/month @ 25°C
Charge voltage(25°C)	
Max.Charging Current(25°C)	250.0A
Float charge:	2.23~2.25V/cell (-3mV/ °C)
Equalize charge:	2.30~2.40V/cell (-4mV/ °C)
Cycle charge:	2.35~2.45V/cell(-5mV/ °C)
Effect of temp to Capacity	
40°C (104°F)	105%
25°C (77°F)	100%
0°C (32°F)	85%

Dimension:233(L)×210(W) ×646(H)×678(TH)
Unit: mm



Rated Capacity(25°C)	
10Hour Rate (100.0A to 1.8V)	1000.0Ah
5Hour Rate (169.3A to 1.8V)	846.5Ah
3Hour Rate (248A to 1.8V)	744.0Ah
1Hour Rate (485A to 1.8V)	485.0Ah
Operating Temperature	
Discharge:	-15 ~50°C(5~ 122°F)
Charge :	-15 ~50°C(5~ 122°F)
Storage:	-20 ~40°C(-4~ 104°F)

Constant Current Discharge Characteristics Unit:A (25°C,77°F)

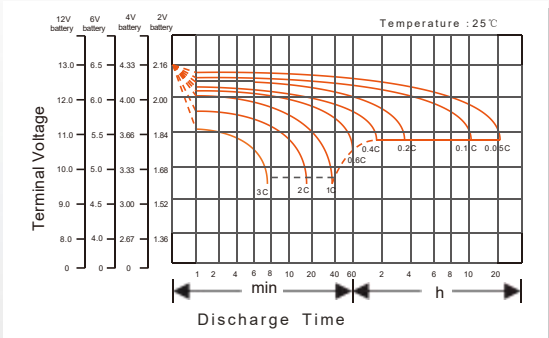
FV/Time	15min	30min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h	48h	72h	100h
1.60V	1029	805	594	371	267	213	180.7	158.9	128.2	104.9	88.6	54.3	47.0	25.74	18.56	14.36
1.65V	970	765	559	361	262	208	178.7	156.9	127.2	104.4	88.1	53.9	46.7	25.74	18.32	14.36
1.70V	916	735	549	351	257	207	176.2	154.4	125.7	104.0	87.6	53.5	46.3	25.25	17.82	13.86
1.75V	858	695	515	342	252	203	173.3	151.5	123.3	102.5	87.1	53.1	45.5	25.25	17.72	13.86
1.80V	799	650	485	332	248	198	169.3	147.5	120.3	100.0	85.1	51.5	44.6	24.75	16.83	13.37
1.85V	681	544	412	299	214	175	150.8	132.7	111.0	95.1	84.2	50.7	43.1	23.27	15.84	12.87
1.90V	564	451	353	255	192	161	140.4	122.5	100.7	85.5	75.7	45.5	39.6	21.78	14.60	11.88
1.95V	441	333	250	189	156	137	110.3	94.4	77.1	68.7	60.4	38.6	35.1	18.81	12.38	9.90

Constant Power Discharge Characteristics Unit: W/cell (25°C ,77°F)

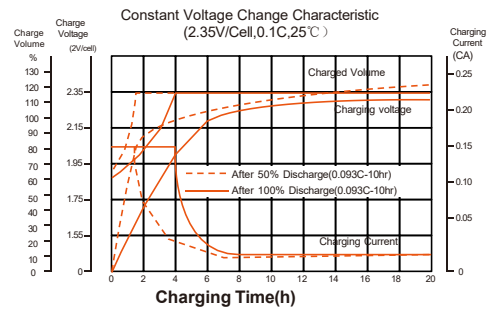
FV/Time	15min	30min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h	48h	72h	100h
1.60V	1774	1421	1084	693	505	403	343.0	302.4	245.0	201.0	169.8	104.1	93.6	51.38	37.13	28.55
1.65V	1695	1348	1020	678	497	396	340.1	299.5	243.5	200.5	169.3	103.8	93.1	51.33	36.53	28.62
1.70V	1602	1294	1005	663	490	395	336.6	295.5	241.6	200.0	168.8	103.4	92.6	50.49	35.59	27.69
1.75V	1514	1240	960	648	483	389	332.1	291.1	237.6	198.0	168.3	103.0	91.1	50.44	35.44	27.72
1.80V	1431	1191	911	634	475	381	325.7	284.1	232.2	193.3	164.8	100.2	89.6	49.77	33.86	26.88
1.85V	1230	1000	784	573	415	339	293.5	258.4	216.4	185.8	164.3	99.4	87.6	47.32	32.22	26.18
1.90V	1024	858	676	495	374	316	275.2	240.4	197.6	168.1	149.0	90.3	82.2	45.19	30.29	24.65
1.95V	823	637	480	367	306	268	216.4	185.6	151.9	135.4	119.3	76.7	73.1	39.11	25.74	20.59

Disclaimer: Manufacturers have the right to self-modify the parameters of the product updates, please keep in touch with manufacturers to obtain the latest information.

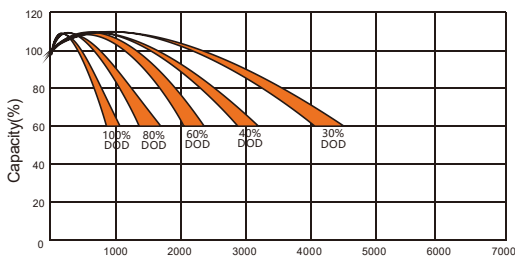
Discharge Characteristics Curve



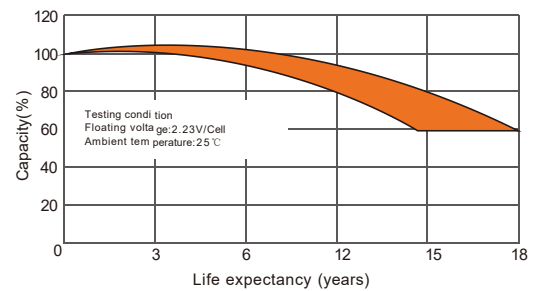
Charging Characteristics Curve



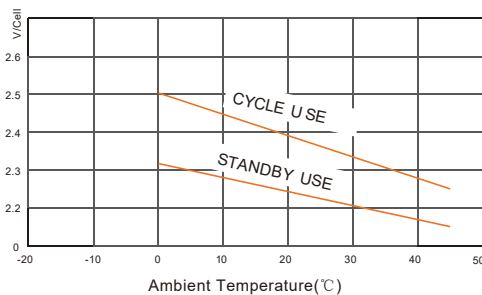
Cycle life of Different DOD



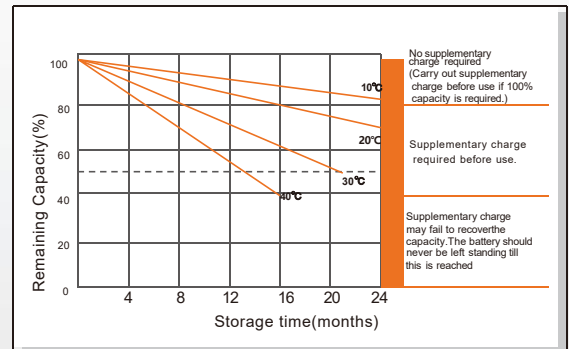
Float charging service life Curve



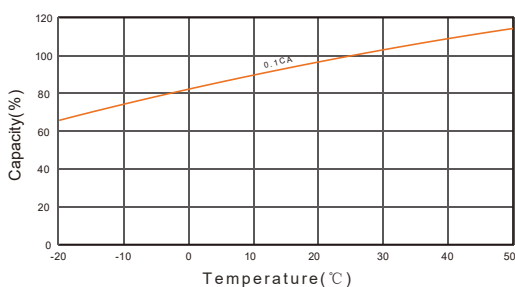
Charging voltage and temperature relationship



Self-discharge Characteristics



Temperature Effects in Relation to Battery Capacity



Temperature Effects on Long Term Float Life

