



# OPzV Series Tubular GEL Battery

## OPzV2500

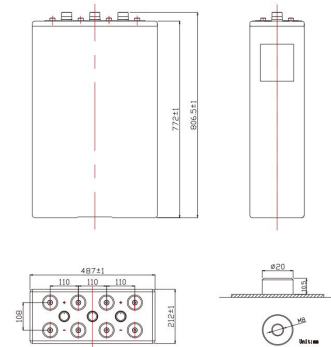
### General Features

- ▶ 20 years design life
- ▶ adopt tubular plate with GEL technology
- ▶ Gas phase SiO<sub>2</sub> colloidal battery technology
- ▶ PVC-SiO<sub>2</sub> 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)	2500Ah
Terminal	M8
Approx. Weight	176.5±3% kg(389.1lbs)
Container Material	ABS
short-circuit current	6250A
Internal resistance(25°C: )	Approx 0.32 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)	625.0A
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:487(L)×212(W) ×772(H)×807(TH)**  
Unit: mm



Rated Capacity(25°C)	
10Hour Rate (250.0A to 1.8V)	2500.0Ah
5Hour Rate (423.2A to 1.8V)	2116Ah
3Hour Rate (619A to 1.8V)	1857.0Ah
1Hour Rate (1188A to 1.8V)	1188.0Ah
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)

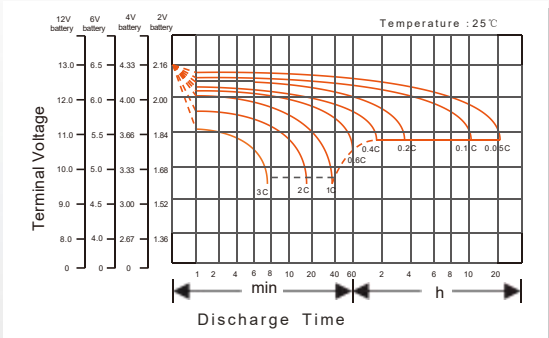
FV/Time	15min	30min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h	48h	72h	100h
1.60V	2547	1992	1455	928	668	532	451.7	397.2	320.5	262.4	221.5	135.6	117.6	64.35	46.41	35.89
1.65V	2401	1893	1370	903	656	520	446.7	392.3	318.0	261.1	220.3	134.6	116.7	64.35	45.79	35.89
1.70V	2268	1819	1346	879	644	517	440.6	386.1	314.3	259.9	219.0	133.7	115.8	63.11	44.55	34.65
1.75V	2122	1720	1261	854	631	507	433.1	378.7	308.1	256.2	217.8	132.7	113.9	63.11	44.30	34.65
1.80V	1977	1609	1188	829	619	495	423.2	368.8	300.7	250.0	212.9	128.7	111.4	61.88	42.08	33.41
1.85V	1703	1360	1029	747	535	437	377.1	331.6	277.5	237.7	210.4	126.7	107.7	58.16	39.60	32.18
1.90V	1409	1127	882	637	479	404	350.9	306.3	251.7	213.7	189.3	113.9	99.0	54.45	36.51	29.70
1.95V	1103	833	625	472	391	342	275.7	236.1	192.9	171.7	151.0	96.5	87.9	47.03	30.94	24.75

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

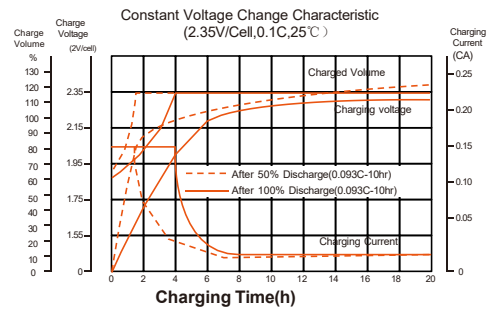
FV/Time	15min	30min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h	48h	72h	100h
1.60V	4390	3517	2656	1733	1262	1099	857.6	756.1	612.6	502.4	424.5	260.4	233.9	128.45	92.81	71.56
1.65V	4196	3335	2498	1695	1244	989	850.2	748.7	608.9	501.2	423.2	259.4	232.7	128.31	91.33	71.38
1.70V	3966	3202	2462	1658	1225	986	841.5	738.8	603.9	500.0	422.0	258.4	231.4	126.10	88.98	69.30
1.75V	3747	3068	2353	1621	1207	971	830.4	727.7	594.0	495.0	420.8	257.4	227.7	126.23	88.61	69.23
1.80V	3541	2947	2231	1584	1188	952	814.3	710.3	580.4	483.1	412.1	250.5	224.0	124.43	84.65	67.19
1.85V	3075	2499	1960	1433	1036	849	733.7	646.0	541.0	464.6	410.9	248.5	219.0	118.30	80.56	65.44
1.90V	2560	2144	1691	1237	936	790	688.1	601.1	493.9	420.2	375.5	225.7	205.4	112.98	75.74	61.63
1.95V	2058	1593	1201	918	764	670	541.0	464.1	379.8	338.5	298.2	191.8	182.7	97.76	64.35	51.48

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.

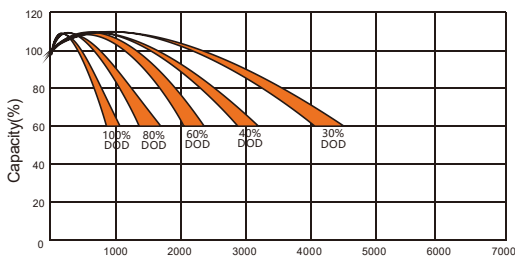
### Discharge Characteristics Curve



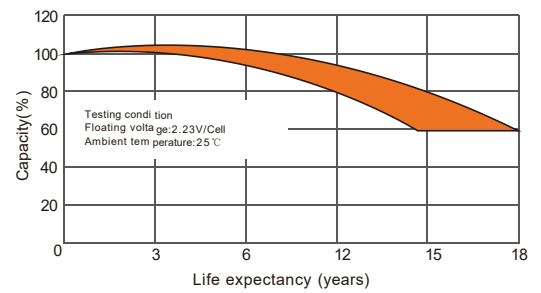
### Charging Characteristics Curve



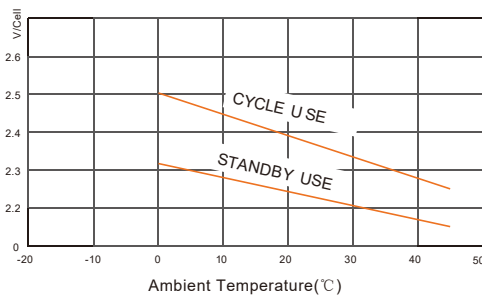
### Cycle life of Different DOD



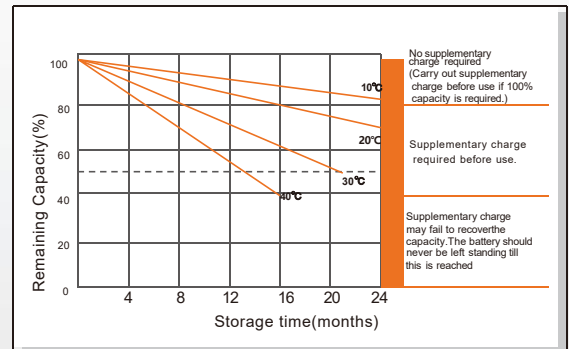
### Float charging service life Curve



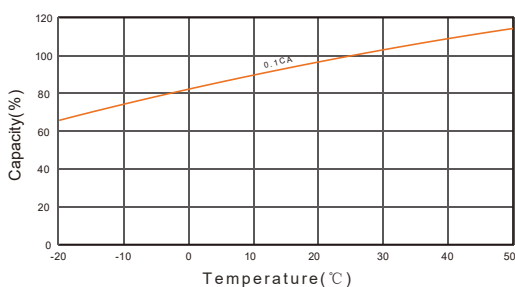
### Charging voltage and temperature relationship



### Self-discharge Characteristics



### Temperature Effects in Relation to Battery Capacity



### Temperature Effects on Long Term Float Life

