



OPzV Series Tubular GEL Battery

OPzV300

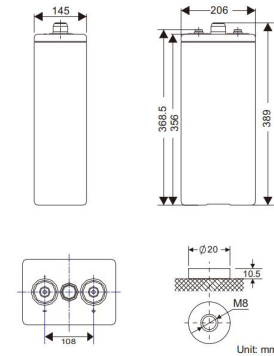
General Features

- ▶ 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)	300Ah
Terminal	M8
Approx. Weight	25.0±3% kg(55.1lbs)
Container Material	ABS
short-circuit current	3225A
Internal resistance(25°C:)	Approx 0.62 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)	75.0A
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:145(L)×206(W) ×356(H)×389(TH)
Unit: mm



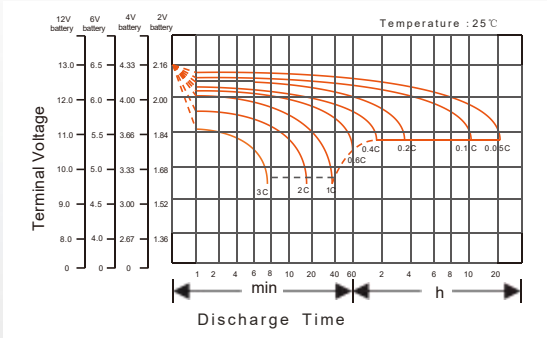
Rated Capacity(25°C)	
10Hour Rate (30.0A to 1.8V)	300.0Ah
5Hour Rate (50.8A to 1.8V)	254.0Ah
3Hour Rate (74.0A to 1.8V)	222.0Ah
1Hour Rate (146.0A to 1.8V)	146.0Ah
Operating Temperature	
Discharge:	-15 ~50°C(5~ 122°F)
Charge :	-15 ~50°C(5~ 122°F)
Storage:	-20 ~40°C(-4~ 104°F)

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	309	242	178	111	80	64	54.2	47.7	38.5	31.5	26.6	16.3	14.1	7.72	5.57	4.31
1.65V	291	230	168	108	79	62	53.6	47.1	38.2	31.3	26.4	16.2	14.0	7.72	5.49	4.31
1.70V	275	221	165	105	77	62	52.9	46.3	37.7	31.2	26.3	16.0	13.9	7.57	5.35	4.16
1.75V	257	209	154	102	76	61	52.0	45.4	37.0	30.7	26.1	15.9	13.7	7.57	5.32	4.16
1.80V	240	195	146	99	74	59	50.8	44.3	36.1	30.0	25.5	15.4	13.4	7.43	5.05	4.01
1.85V	204	163	123	90	64	52	45.3	39.8	33.3	28.5	25.2	15.2	12.9	6.98	4.75	3.86
1.90V	169	135	106	76	57	48	42.1	36.8	30.2	25.6	22.7	13.7	11.9	6.53	4.38	3.56
1.95V	132	100	75	57	47	41	33.1	28.3	23.1	20.6	18.1	11.6	10.5	5.64	3.71	2.97

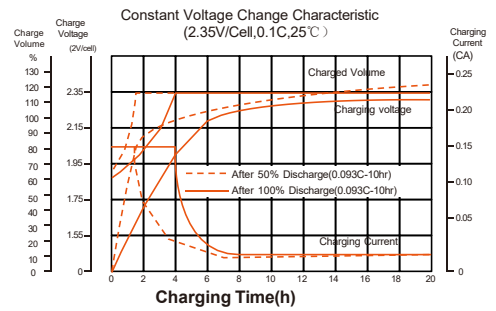
Constant Power Discharge Characteristics Unit: W/cell (25°C ,77°F)																
FV/Time	15min	30min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h	48h	72h	100h
1.60V	532	426	325	208	151	121	102.9	90.7	73.5	60.3	50.9	31.2	28.1	15.41	11.14	8.59
1.65V	509	404	306	203	149	119	102.0	89.8	73.1	60.1	50.8	31.1	27.9	15.40	10.96	8.57
1.70V	481	388	301	199	147	118	101.0	88.7	72.5	60.0	50.6	31.0	27.8	15.15	10.68	8.32
1.75V	454	372	288	195	145	117	99.6	87.3	71.3	59.4	50.5	30.9	27.3	15.13	10.63	8.31
1.80V	429	357	273	190	143	114	97.7	85.2	69.6	58.0	49.5	30.1	26.9	14.93	10.16	8.06
1.85V	369	300	235	172	124	102	88.0	77.5	64.9	55.8	49.3	29.8	26.3	14.20	9.67	7.85
1.90V	307	257	203	148	112	95	82.6	72.1	59.3	50.4	44.7	27.1	24.7	13.56	9.09	7.40
1.95V	247	191	144	110	92	80	64.9	55.7	45.6	40.6	35.8	23.0	21.9	11.73	7.72	6.18

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.

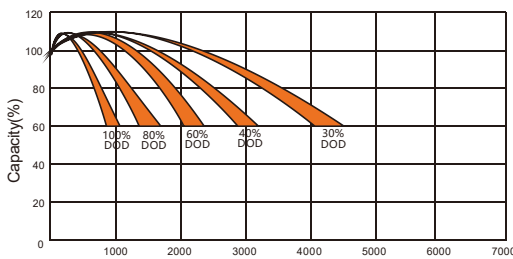
Discharge Characteristics Curve



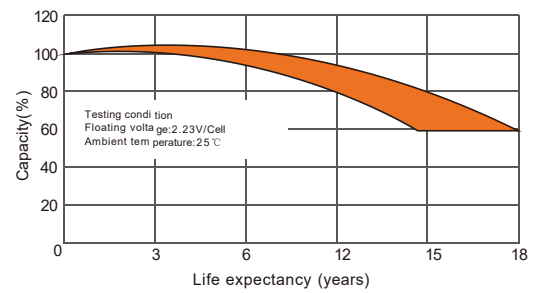
Charging Characteristics Curve



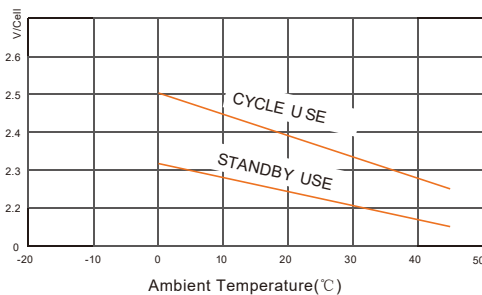
Cycle life of Different DOD



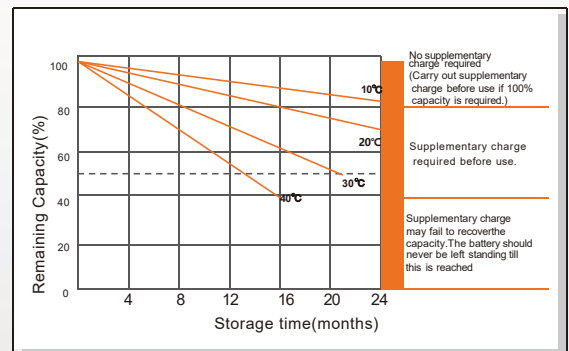
Float charging service life Curve



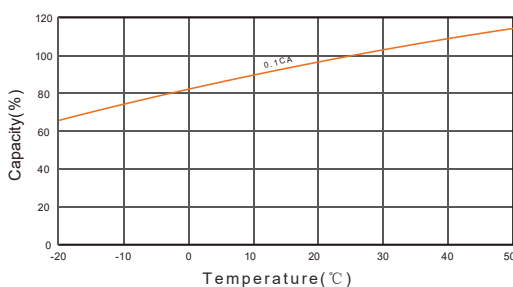
Charging voltage and temperature relationship



Self-discharge Characteristics



Temperature Effects in Relation to Battery Capacity



Temperature Effects on Long Term Float Life

