



Tubular Gel Technology  
OPzV Series

**10 OPzV 1000**

2V1000Ah(10hr)

**Complying standards:**

IEC60896-21/22: 2004    IEC61427-2014  
YD/T1360-2005        DIN43539-T5  
DIN40742:1999        GB/T 22473-2008



The ABT OPzV series are valve regulated lead-acid cells which use a combination of tubular positive plate woven gauntlets, pasted negative plate design, and special GEL electrolyte filling techniques, which assure the long life and excellent reliability of the battery. This series is widely used for large range of applications including telecommunication, power generating stations and distribution systems, power supply system, energy storage, UPS system, railway, airport and seaport signaling, emergency lighting, solar and it's suitable for harsh environment and poor power supply condition.

**Mechanical Characteristics**

	SI Unit	EN Unit
Length	233mm	9.17inch
Width	210mm	8.27inch
Height	646mm	25.43inch
Total Height	678.5mm	26.71inch
Approx. Weight	73.8kg	162.4lbs

Type of material for container and lids:  
ABS Standard (FV0 Optional)

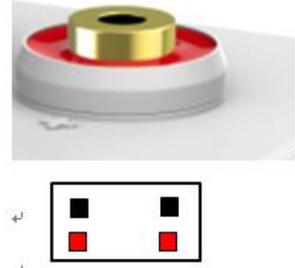
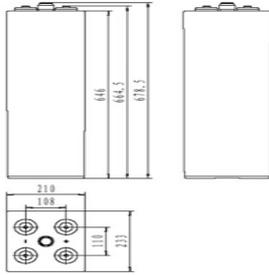
**Product Characteristics**

- Design life: 20 years at 68°F (20°C)
- Very long life according to EUROBAT Classification
- Up to 1500 deep discharge cycles
- High discharge performance
- High gas recombination efficiency
- Maximum charge efficiency
- GEL state electrolyte prevents leakage and layering
- Low resistance PVC-SiO2 micro-porous separator ensure Low self-discharge rate
- Easy installation vertical or horizontal

**Performance Characteristics**

- Rated voltage: 2V (1 Cell)
- Rated capacity at 68°F(20°C)
  - 10h rate (100A, 1.80V) 1000Ah
  - 5h rate (170A, 1.80V) 850Ah
  - 1h rate (500A, 1.80V) 500Ah
- Internal resistance:
  - 0.34mΩ when fully charged at 68°F(20°C)
- Average self-discharge rate:
  - ≤3% per month 68°F(20°C)
- Maximum discharge current:
  - 3905A(3s) at 68°F(20°C)
- Working temperature range:
  - Discharge: -25~60°C
  - Charge: -10~60°C
  - Storage: -25~60°C
- Charging method:
  - with constant voltage at 68°F(20°C)
  - Maximum charge current:200A
  - Temperature compensation: -3.5mV/°C/piece
  - Cycle use: 2.37V/ piece
  - Standby use: 2.27V/ piece

**Dimensions/Terminal**



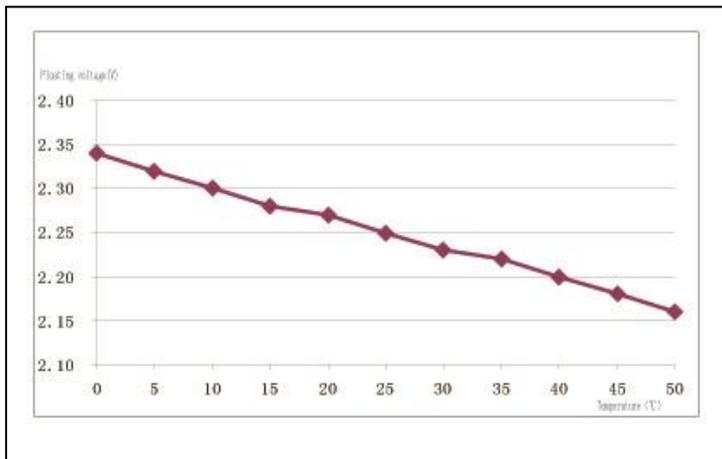
**Constant Current Discharge Data (Ampere at 20°C/68 °F)**

End Volt	5min	10min	15min	20min	30min	1h	2h	3h	5h	6h	8h	10h	20h	24h	48h	100h	120h	240h
1.65	1338	1205	1113	1022	840	577	376.7	294.3	202.7	171.7	132.7	113.0	59.2	48.20	27.00	12.97	10.90	5.65
1.70	1282	1117	1038	963	805	550	356.7	278.7	191.7	162.0	127.3	109.0	57.8	46.87	26.63	12.93	10.85	5.63
1.75	1183	1053	972	897	780	527	336.7	264.0	181.7	156.0	122.3	105.0	55.0	45.77	26.30	12.90	10.80	5.60
1.80	1108	995	912	832	710	500	318.0	250.0	170.0	145.3	117.7	100.0	53.7	44.90	26.00	12.88	10.75	5.57
1.85	1028	902	833	755	667	477	301	236.7	163.0	140.3	111.3	94.7	52.2	44.5	25.63	12.87	10.70	5.55

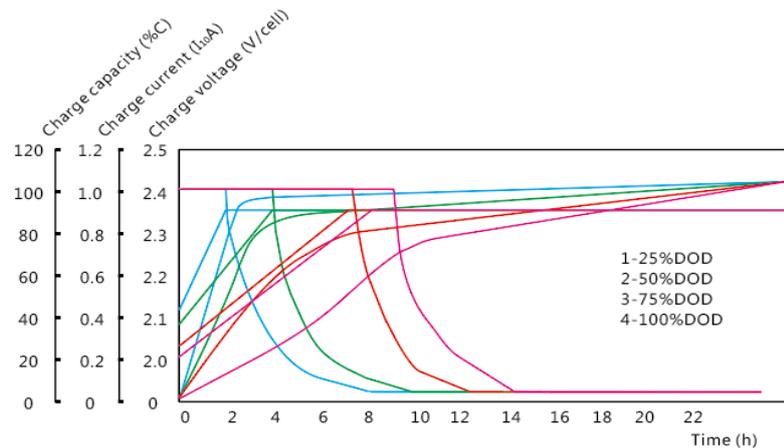
**Constant Power Discharge Data (Watts per cell at 20°C/68 °F)**

End Volt	5min	10min	15min	20min	30min	1h	2h	3h	5h	6h	8h	10h	20h	24h	48h	100h	120h	240h
1.65	2242	2047	1859	1687	1420	987.6	657.5	492.5	402.4	340.5	273.8	220.7	117.4	100.8	54.00	26.17	21.83	11.33
1.70	2153	1966	1771	1617	1360	957.0	632.5	475.0	388.1	328.6	264.3	218.1	115.0	99.33	53.33	25.88	21.70	11.28
1.75	2049	1886	1708	1557	1320	940.0	617.5	465.0	378.6	319.0	257.1	210.0	113.3	95.95	52.67	25.81	21.62	11.20
1.80	1942	1775	1605	1469	1267	915.0	603.3	457.5	352.4	297.6	247.6	205.0	111.2	92.10	52.00	25.69	21.50	11.15
1.85	1826	1581	1440	1307	1140	881.6	577.5	437.5	321.4	283.3	229.8	193.6	107.6	88.70	51.25	25.55	21.43	11.10

**Floating Charge Voltage vs. Temperature**



**Cycle charge characteristic curve (at 20°C/68 °F)**



Contact information

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**ABT VRLA Battery: Available power range from 26Ah to 3000Ah.**

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