

Tubular Gel Technology  
OPzV Series

**6 OPzV 420**

2V420Ah(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	145mm	5.71inch
Width	206mm	8.11inch
Height	471mm	18.54inch
Total Height	503.5mm	19.82inch
Approx. Weight	32.4kg	71.28lbs

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-SiO<sub>2</sub> 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 (42A, 1.80V)	420Ah
5h rate (71.4A, 1.80V)	357Ah
1h rate (210A, 1.80V)	210Ah
- Internal resistance:
 

0.55mΩ when fully charged at 68°F (20°C)
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- Average self-discharge rate:
 

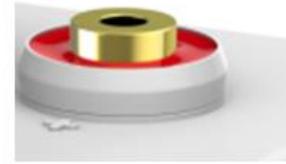
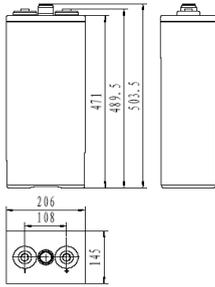
≤3% per month 68°F (20°C)
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- Maximum discharge current:
 

2438A(3s) at 68°F (20°C)
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- 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: 84A
Temperature compensation: -3.5mV/°C/piece
Cycle use: 2.37V/ piece
Standby use: 2.27V/ piece

**Dimensions/Terminal**



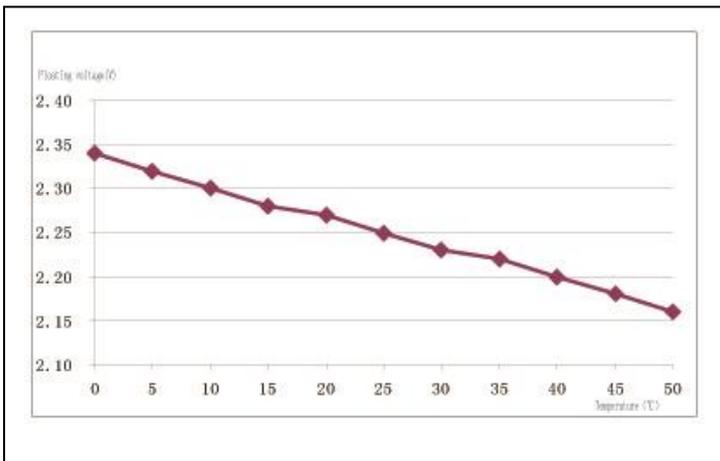
**Constant Current Discharge Data (Ampere at 20°C/68 °F)**

End Volt	5min	10min	15min	20min	30min	1h	2h	3h	5h	6h	8h	10h	20h	24h	48h	100h	120h	240h
1.65	584	544	496	431	348	242	159.8	123.6	85.1	72.1	54.6	44.0	24.0	20.64	11.34	5.87	4.92	2.52
1.70	540	508	461	409	335	231	155.4	117.0	80.5	68.0	53.5	43.4	23.6	20.09	11.19	5.82	4.88	2.47
1.75	508	485	445	386	313	221	152.4	110.9	76.3	65.5	51.4	42.7	23.3	19.70	11.05	5.76	4.84	2.44
1.80	478	463	427	371	299	210	145.2	105.0	71.4	61.0	49.4	42.0	22.7	19.37	10.92	5.70	4.79	2.41
1.85	457	432	403	351	276	200	138	99.4	68.5	58.9	46.8	40.9	22.0	18.8	10.77	5.60	4.72	2.38

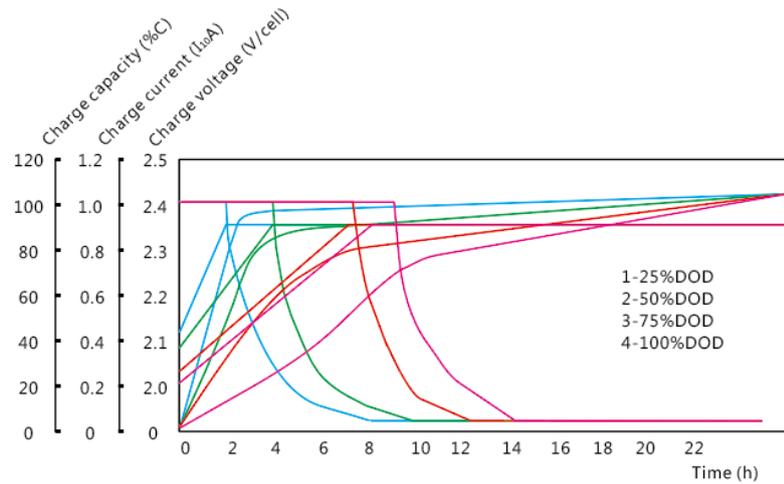
**Constant Power Discharge Data (Watts per cell at 20°C/68 °F)**

End Volt	5min	10min	15min	20min	30min	1h	2h	3h	5h	6h	8h	10h	20h	24h	48h	100h	120h	240h
1.65	991	905	822	740	618	419.0	276.2	206.9	169.0	143.0	115.0	92.7	49.3	41.40	22.80	11.82	9.90	5.10
1.70	952	869	783	707	593	406.0	265.7	199.5	163.0	138.0	111.0	91.6	48.3	40.32	22.32	11.70	9.79	4.98
1.75	902	834	748	679	572	396.0	259.4	195.3	159.0	134.0	108.0	88.2	47.6	39.60	22.14	11.58	9.68	4.90
1.80	833	760	674	617	539	388.0	252.0	192.2	148.0	125.0	104.0	86.1	46.7	38.64	21.84	11.40	9.60	4.82
1.85	767	664	605	549	479	374.0	242.6	183.8	135.0	119.0	96.5	81.3	45.2	37.68	21.54	11.22	9.50	4.76

**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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