

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



## Energy Storage Battery-Tubular GEL Technology-OPzV Series

# OPzV420

(2V 420Ah)

### GENERAL FEATURES

- ◆ 20 years design life at floating condition
- ◆ Wide operating temperature range from -40°C to +60°C
- ◆ Tubular positive plate with prolonged cycle life
- ◆ Fumed silica gel electrolyte
- ◆ lead-calcium grid significantly improves the corrosion resistance ability
- ◆ Low self-discharge rate and long shelf life
- ◆ Excellent deep discharge recovery capability



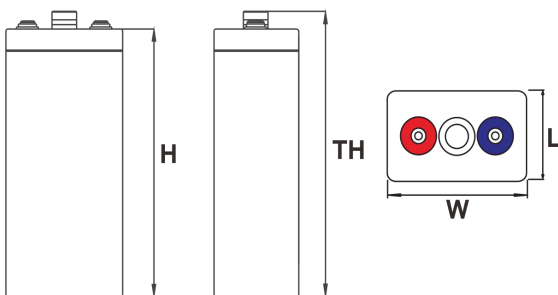
### Application

- ◆ Renewable energy system
- ◆ Hybrid solar power system
- ◆ Uninterrupted Power Supply (UPS)
- ◆ Communications and electric equipment
- ◆ Emergency lighting equipment
- ◆ Fire alarm and security systems
- ◆ Control equipment, and other factory automation equipment
- ◆ Emergency power supply (EPS)
- ◆ Lighting equipment

### Dimension

Unit:mm

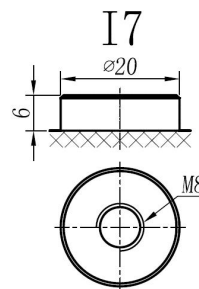
Length	145±2mm / 5.71inch
Width	206±2mm / 8.11inch
Container Height	473±3mm / 18.62inch
Total Height	505±3mm / 19.88inch



### Terminal

Unit:mm

Terminal Type: I7



### Weight

33.5kg 73.85lbs



ISO9001 ISO14001 OHSAS18001

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## OPzV420

### Specification

<b>Nominal Voltage</b>	2V	
<b>Rated Capacity(25°C)</b>	445Ah	20hr Rate(1.80V/cell)
	420Ah	10hr Rate(1.80V/cell)
	367Ah	5hr Rate(1.75V/cell)
	329Ah	3hr Rate(1.70V/cell)
	251Ah	1hr Rate(1.60V/cell)
<b>Container Material</b>	ABS (Fire-proofing ABS container available)	
<b>Operating Temperature Range</b>	<b>Discharge</b>	-40 ~ +60°C
	<b>Charge</b>	0 ~ +40°C
	<b>Storage</b>	-20 ~ +40°C
<b>Capacity Effected by Temperature</b>	<b>40°C / 104°F</b>	106%
	<b>25°C / 77°F</b>	100%
	<b>0°C / 32°F</b>	86%
	<b>-20°C / -4°F</b>	60%
<b>Charge Voltage</b>	<b>Float Voltage</b>	2.23V/cell@25°C, Compensation Factor: -3mV/cell/°C
	<b>Equalize Voltage</b>	2.35 -2.40V/cell@25°C, Compensation Factor: -3mV/cell/°C
	<b>Cycle Voltage</b>	2.40 -2.50V/cell@25°C, Compensation Factor: -5mV/cell°C
<b>Max Charging Current</b>	84A (0.2C)	
<b>Max. Discharge Current (5S)</b>	2520A	
<b>Internal Resistance</b>	0.55mΩ	
<b>Self Discharge</b>	<3%, OPZV series stored at 25 °C require a supplementary charge every six months, the charging interval would shrink when the ambient temperature went higher	

### Discharge Performance

Constant Current Discharge Table (25°C/77°F) Unit: A

F.V/Time	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	317	254	190	131	100	68.9	49.1	40.7	21.5
1.80V/cell	352	280	209	139	105	71.4	51.1	42.0	22.3
1.75V/cell	376	298	220	145	107	73.3	52.2	43.1	22.8
1.70V/cell	399	315	231	150	110	75.0	52.9	43.6	23.1
1.65V/cell	420	332	241	154	112	76.3	53.8	44.1	23.3
1.60V/cell	443	343	251	156	113	77.0	54.3	44.5	23.4

Constant Power Discharge Table (25°C/77°F) Unit: W

F.V/Time	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	596	482	365	253	194	134	96.3	79.9	42.5
1.80V/cell	648	520	395	265	202	138	99.3	81.9	43.7
1.75V/cell	681	547	412	276	205	141	101.1	83.6	44.5
1.70V/cell	711	572	430	283	209	144	102.0	84.3	45.1
1.65V/cell	736	595	444	289	212	146	103.2	84.8	45.2
1.60V/cell	764	604	459	292	213	147	103.9	85.4	45.3



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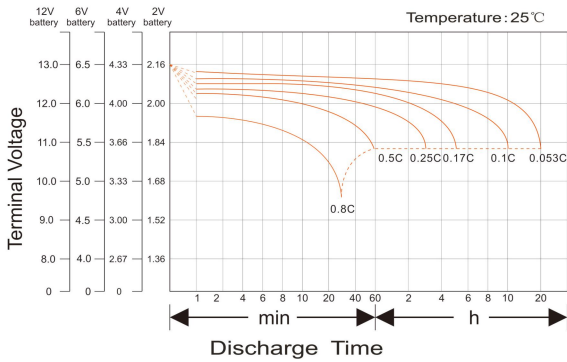


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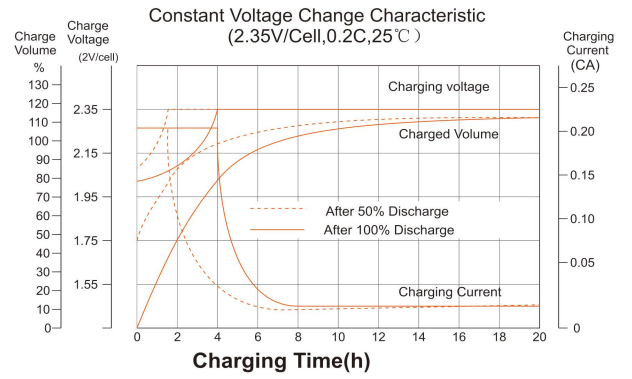


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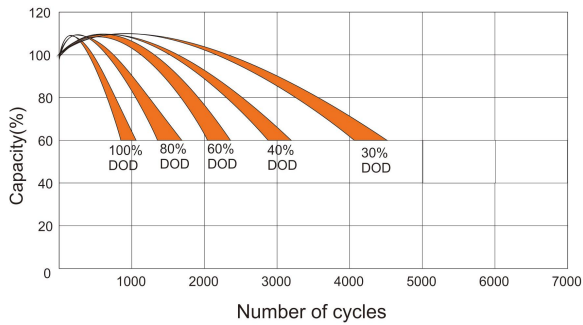
### Discharge Characteristics Curve



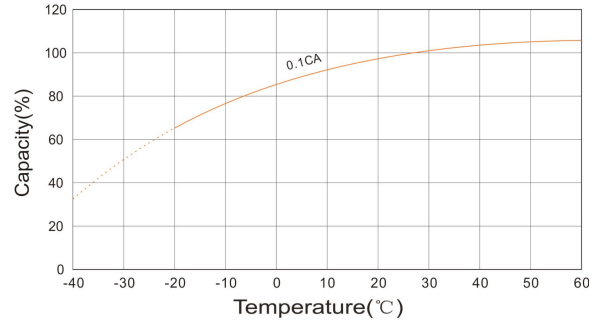
### Charging Characteristics Curve



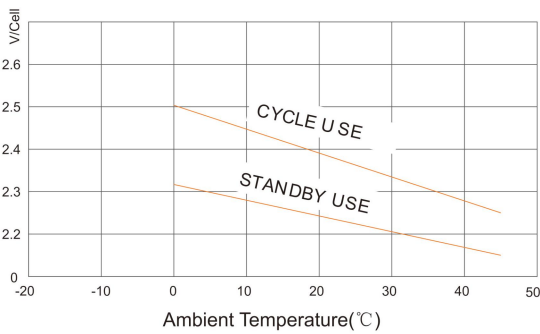
### Cycle life in relation to depth of Discharge



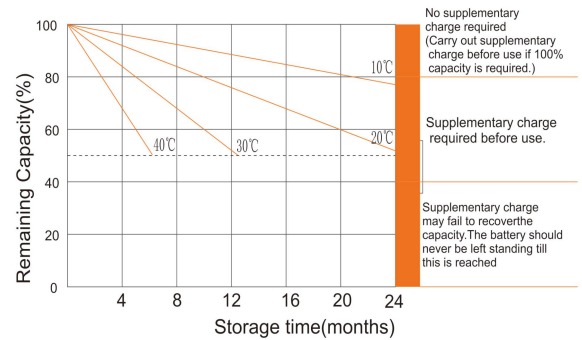
### Temperature effects on Capacity



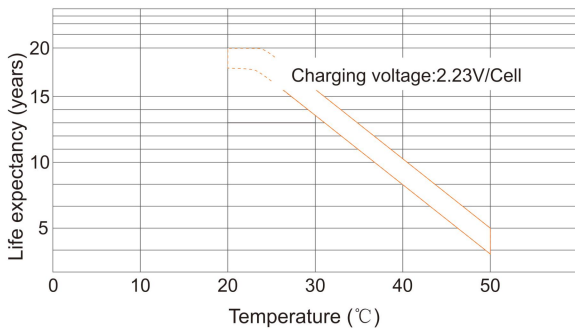
### Relationship between charging voltage and temperature



### Self-discharge Characteristics



### Temperature effects on Float life



### Life Characteristics of Standby use

