

# OPzV Series

## 6 OPzV 420 2V420Ah

Sacred Sun OPzV series are valve regulated lead-acid cells which use a combination of tubular positive plate woven gauntlets, pasted negative plate design and gel electrolyte using advanced filling techniques in production which assure superior service life and excellent battery reliability. The battery has excellent cyclic performance and charge acceptance ability. It can be used in high-low temperature environment and poor grid condition.



### Benefits

- Very long life according to EUROBAT Classification
- 1500+ cycles at 80% DOD
- High rate discharge performance
- High gas recombination efficiency
- Maximum charge efficiency
- GEL state electrolyte prevents leakage and layering
- Low resistance PVC or PF micro-porous separator ensures low self-discharge rate
- Optional racking offers easy installation (vertical or horizontal)

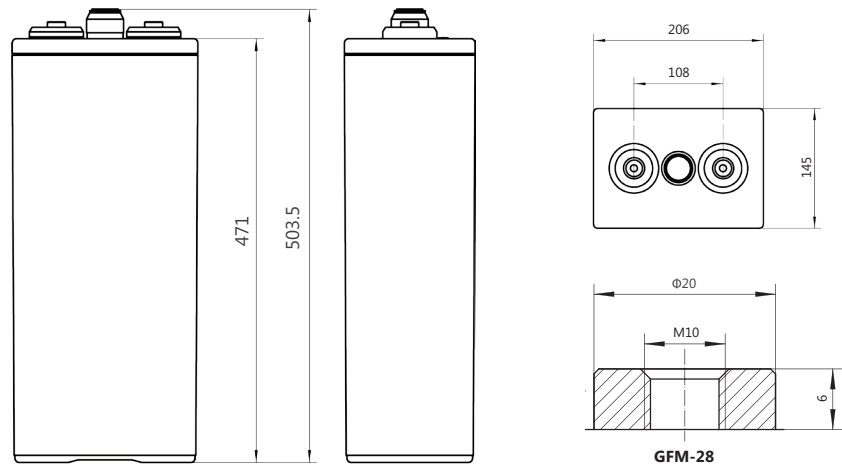
### Applications

- Telecommunications
- Energy storage system
- Hybrid power system
- Power system
- UPS

### Standards

- IEC 60896-21/22
- IEC 61427
- DIN 43539-T5
- DIN 40742
- EUROBAT guide

### Drawing



### Specifications

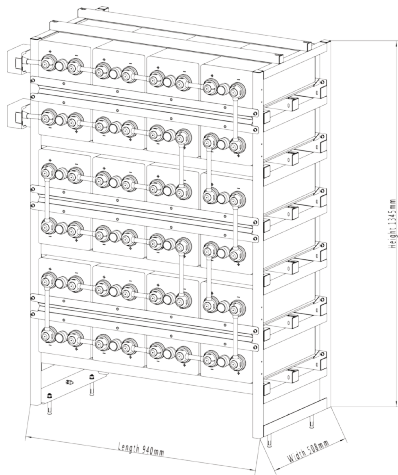
Battery Model	6 OPzV 420			
Design Life (years, 25°C)	20			
Capacity (Ah, 25°C)	10HR (42A, 1.80V)	5HR (71.4A, 1.80V)	3HR (105A, 1.80V)	1HR (210A, 1.80V)
	420	357	315	210
Dimensions (mm)	Length	Width	Height	Total Height
	145	206	471	503.5
Approx. Weight (kg)	32.4			
Reference Internal Resistance (mΩ)	0.42 (fully charged @ 25°C)			
Maximum Discharge Current (A/3 Sec.)	2438			
Self-Discharge (25°C)	≤ 3% per month			
Charge Voltage (V/cell, 25°C)	Cycle use		Float use	
	2.35 (-3.5mV/°C/cell), max charge current: 84A		2.25 (-3.5mV/°C/cell)	
Short Circuit Current (A)	3658			

## Discharge Data

Constant Current Discharge Data (25°C, A)													
End Voltage (V/cell)	h												
	1	2	3	5	6	8	10	20	24	48	100	120	240
1.65	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	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	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	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	200	138	99.4	68.5	58.9	46.8	40.9	22.0	18.8	10.77	5.60	4.72	2.38

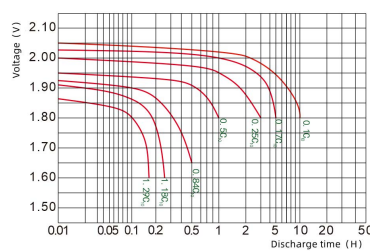
Constant Power Discharge Data (25°C, W/cell)													
End Voltage (V/cell)	h												
	1	2	3	5	6	8	10	20	24	48	100	120	240
1.65	419.0	276.2	206.9	169.0	143.0	115.0	92.7	49.3	41.40	22.80	11.82	9.90	5.10
1.70	406.0	265.7	199.5	163.0	138.0	111.0	91.6	48.3	40.32	22.32	11.70	9.79	4.98
1.75	396.0	259.4	195.3	159.0	134.0	108.0	88.2	47.6	39.60	22.14	11.58	9.68	4.90
1.80	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	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

## Rack Layout

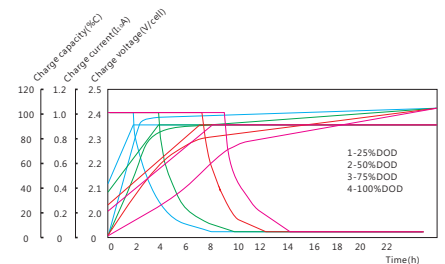


48V Standard Rack (Anti-seismic rack is optional)  
 Rack material: powder-coated steel  
 Height\*width: 6\*4/4\*6 (optional)  
 Ref. 6 OPzV 420 Rack (approx. weight: 885kg)

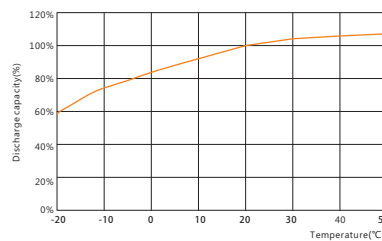
## Performance Curve



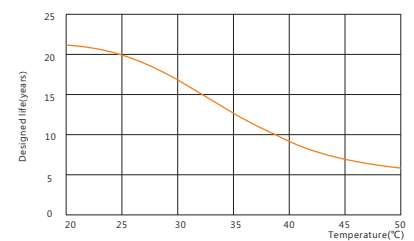
Discharge voltage vs. discharge time



Charge vs. discharge depth



Capacity vs. temperature



Design life vs. temperature

### Sacred Sun Power Sources Co., Ltd.

Add: No.1 Shengyang Road, Qufu 273100 PRC  
 Tel: +86-537-4422313 Fax: +86-537-4411980  
 Email: sales@sacredsun.cn

### Sacred Sun Hong Kong Co., Limited

Add: RM 19C Lockhart CTR 301-307 Lockhart RD Wan Chai, Hong Kong  
 Email: admin.hk@sacredsun.hk

### Sacred Sun Asia Pacific Pte Ltd.

Add: 1 Ubi View, #04-12, Focus One, Singapore 408555  
 Email: admin.sg@sacredsun.sg

### Sacred Sun Europe SARL

Add: ZAE Fontaine, 33210 Fargues, France  
 Email: admin.eu@sacredsun.eu

### Sacred Sun MEA FZE

Add: No. 311 office, Building LOB 14, JAFZA, Dubai, UAE  
 Email: admin.ae@sacredsun.ae