

# OPzV Series

## 12V 2 OPzV 100 12V100Ah

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
- Vertical installation

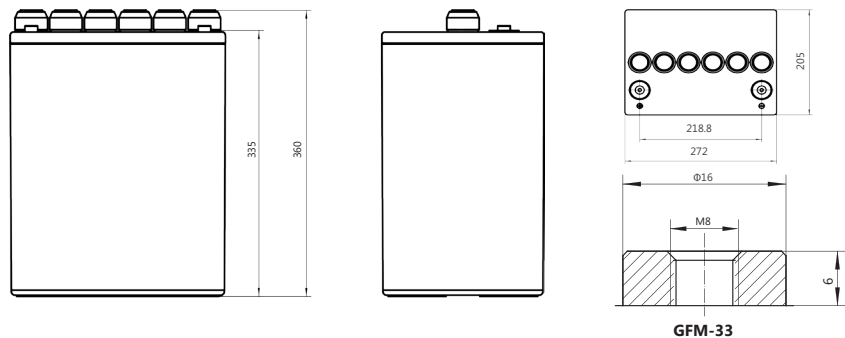
### Applications

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

### Standards

- IEC 60896-21/22
- IEC 61427
- DIN 43539-T5
- DIN 40744
- EUROBAT guide

### Drawing



### Specifications

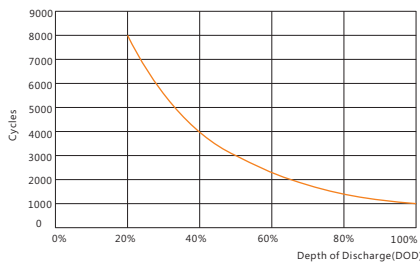
Battery Model	12V 2 OPzV 100			
Design Life (years, 25°C)	15			
Capacity (Ah, 25°C)	10HR (10A, 1.80V)	5HR (17A, 1.80V)	3HR (25A, 1.80V)	1HR (50A, 1.80V)
	100	85	75	50
Dimensions (mm)	Length	Width	Height	Total Height
	272	205	335	360
Approx. Weight (kg)	50.0			
Reference Internal Resistance (mΩ)	6.69 (fully charged @ 25°C)			
Maximum Discharge Current (A/3 Sec.)	675			
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: 20A		2.25 (-3.5mV/°C/cell)	
Short Circuit Current (A)	1000			

## Discharge Data

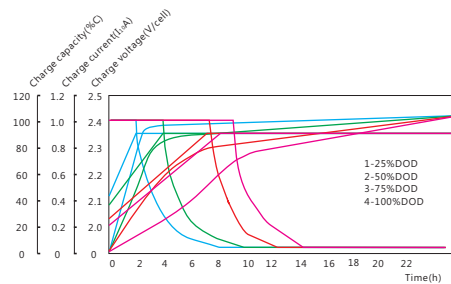
Constant Current Discharge Data (25°C, A)																		
End Voltage (V/cell)	min					h												
	5	10	15	20	30	1	2	3	5	6	8	10	20	24	48	100	120	240
1.65	151	135	118	103	87	57	37.8	29.5	19.3	16.8	13.3	11.7	6.0	5.13	2.60	1.29	1.09	0.56
1.70	141	127	109	99	85	55	35.5	27.9	18.7	16.3	12.7	11.0	5.8	5.07	2.59	1.27	1.07	0.55
1.75	135	121	107	96	80	53	33.6	26.4	17.9	15.5	12.3	10.5	5.6	5.00	2.58	1.25	1.05	0.54
1.80	127	115	101	90	77	50	31.8	25.0	17.0	14.9	11.7	10.0	5.3	4.93	2.52	1.23	1.03	0.53
1.85	120	109	96	85	73	47	30.1	23.7	16.3	14.4	11.1	9.6	5.1	4.70	2.45	1.20	1.01	0.52

Constant Power Discharge Data (25°C, W/cell)																		
End Voltage (V/cell)	min					h												
	5	10	15	20	30	1	2	3	5	6	8	10	20	24	48	100	120	240
1.65	250	245	226	210	172	115.0	75.0	59.0	38.4	33.6	26.6	23.3	11.9	10.30	5.20	2.57	2.18	1.12
1.70	232	227	212	192	165	111.0	70.6	56.1	37.2	32.2	25.4	22.0	11.6	10.14	5.18	2.54	2.14	1.09
1.75	212	208	195	180	155	105.0	66.8	55.2	35.6	31.0	24.6	21.0	11.1	10.00	5.15	2.50	2.10	1.07
1.80	192	189	172	158	140	100.0	63.5	49.8	33.8	29.6	23.4	19.9	10.5	9.85	5.03	2.46	2.06	1.05
1.85	185	160	145	137	119	95.0	60.2	47.2	32.6	28.6	22.2	18.6	10.2	9.40	4.89	2.40	2.02	1.03

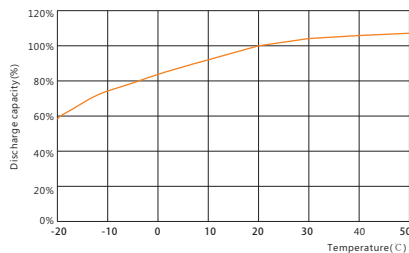
## Performance Curve



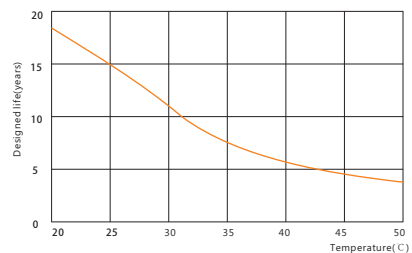
Cycle life vs. discharge depth



Charge vs. discharge depth



Capacity vs. temperature



Design life vs. temperature

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