

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



Energy Storage Battery-Tubular Flooded Technology-OPzS Series

OPzS420

(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
- ◆ Special filter and seal design ensure no acid mist overflow
- ◆ Excellent deep discharge recovery capability
- ◆ Flooded design, transparent containers, convenient to observe and replenish the lost water
- ◆ Low maintenance



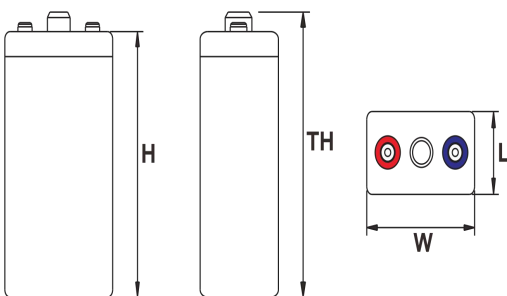
Application

- ◆ 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

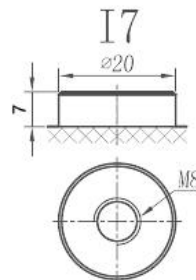
Length	145±2mm / 5.71inch
Width	206±2mm / 8.11inch
Container Height	471±3mm / 18.54inch
Total Height	526±3mm / 20.71inch



Terminal

Unit:mm

Terminal Type: I7



Weight

Without electrolyte

23kg 50.7lbs

With electrolyte

32kg 70.5lbs



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Specificaion

Nominal Voltage	2V	
Rated Capacity(25°C)	447Ah	20hr Rate(1.80V/cell)
	420Ah	10hr Rate(1.80V/cell)
	358Ah	5hr Rate(1.75V/cell)
	316Ah	3hr Rate(1.70V/cell)
	242Ah	1hr Rate(1.60V/cell)
Container Material	SAN	
Operating Temperature Range	Discharge	-40 ~ +60°C
	Charge	0 ~ +40°C
	Storage	-20 ~ +40°C
Capacity Effected by Temperature	40°C / 104°F	106%
	25°C / 77°F	100%
	0°C / 32°F	86%
	-20°C / -4°F	60%
Charge Voltage	Float Voltage	2.23V/cell@25°C, Compensation Factor: -3mV/cell/°C
	Equalize Voltage	2.35 -2.40V/cell@25°C, Compensation Factor: -3mV/cell/°C
	Cycle Voltage	2.40 -2.50V/cell@25°C, Compensation Factor: -5mV/cell°C
Max Charging Current	84A (0.2C)	
Max. Discharge Current (5S)	2520A	
Internal Resistance	0.62mΩ	
Self Discharge	4%, OPzS 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	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	243	197	128	97.4	67.7	48.7	41.5	22.0
1.80V/cell	288	212	135	101	70.1	50.2	42.0	22.3
1.75V/cell	315	222	140	103	71.6	51.4	43.3	23.0
1.70V/cell	327	229	144	105	72.9	52.4	44.0	23.4
1.65V/cell	342	236	148	107	73.9	53.1	44.2	23.5
1.60V/cell	353	242	151	109	74.8	53.4	44.5	23.7

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

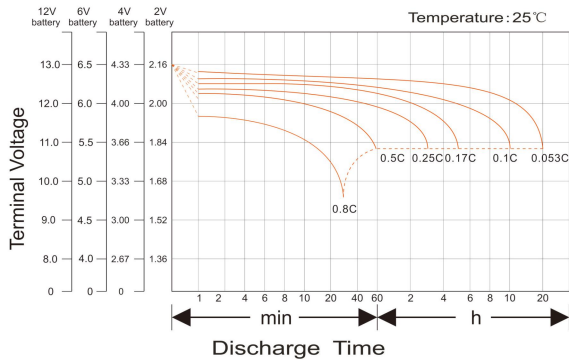
F.V/Time	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	572	394	267	203	136	100	82.8	43.8
1.80V/cell	595	423	277	213	139	103	86.5	45.9
1.75V/cell	620	449	287	219	146	108	91.1	48.2
1.70V/cell	646	477	296	225	152	110	92.9	49.2
1.65V/cell	677	509	300	228	154	112	94.1	49.9
1.60V/cell	715	547	302	230	155	112	94.8	50.2

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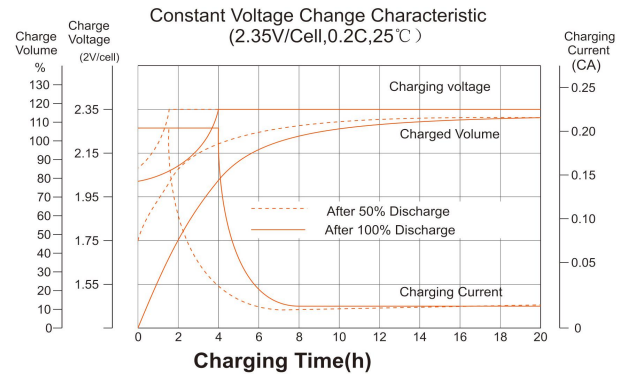
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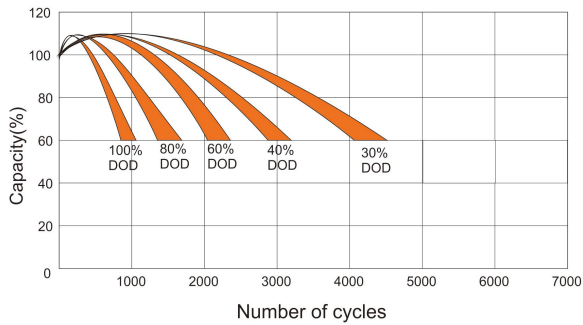
Discharge Characteristics Curve



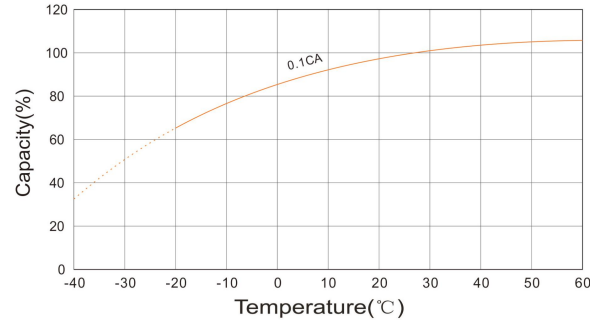
Charging Characteristics Curve



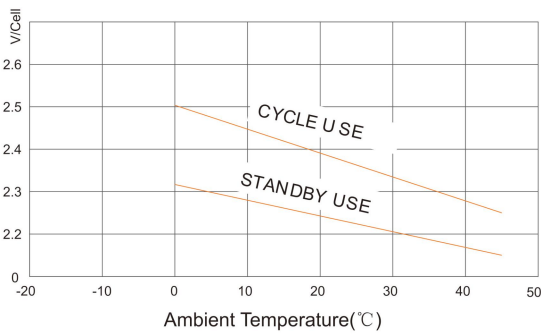
Cycle life in relation to depth of Discharge



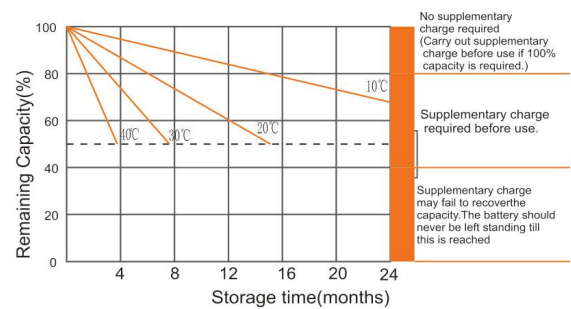
Temperature effects on Capacity



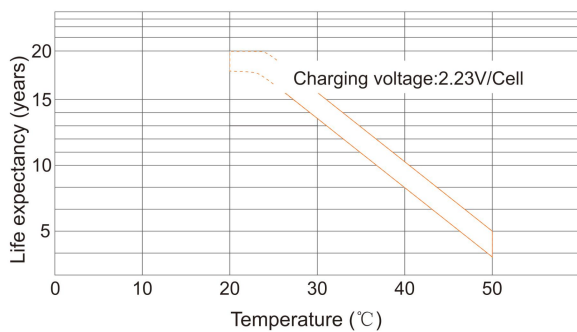
Relationship between charging voltage and temperature



Self-discharge Characteristics



Temperature effects on Float life



Life Characteristics of Standby use

