

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



Energy Storage Battery-Tubular Flooded Technology-OPzS Series

OPzS490

(2V 490Ah)

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



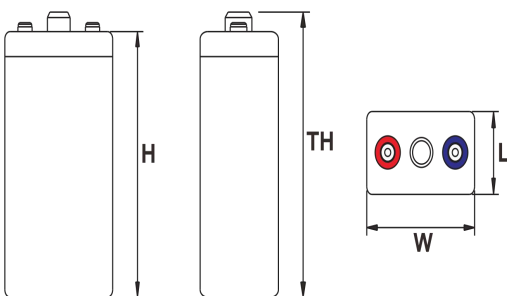
Application

- ◆ 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

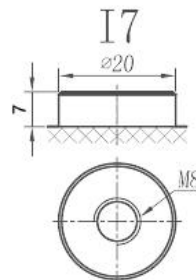
Length	166±2mm / 6.54inch
Width	206±2mm / 8.11inch
Container Height	471±3mm / 18.54inch
Total Height	526±3mm / 20.71inch



Terminal

Unit:mm

Terminal Type: I7



Weight

Without electrolyte

26.2kg 57.8lbs

With electrolyte

38kg 83.8lbs



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Specificaion

Nominal Voltage	2V	
Rated Capacity(25°C)	521Ah	20hr Rate(1.80V/cell)
	490Ah	10hr Rate(1.80V/cell)
	417Ah	5hr Rate(1.75V/cell)
	369Ah	3hr Rate(1.70V/cell)
	282Ah	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	98A (0.2C)	
Max. Discharge Current (5S)	2940A	
Internal Resistance	0.56mΩ	
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	283	230	150	114	79.0	56.8	48.4	25.7
1.80V/cell	336	247	158	117	81.7	58.6	49.0	26.1
1.75V/cell	368	260	164	120	83.5	60.0	50.6	26.9
1.70V/cell	382	267	168	123	85.1	61.2	51.4	27.2
1.65V/cell	398	275	172	125	86.2	61.9	51.5	27.4
1.60V/cell	412	282	176	127	87.2	62.3	51.9	27.6

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

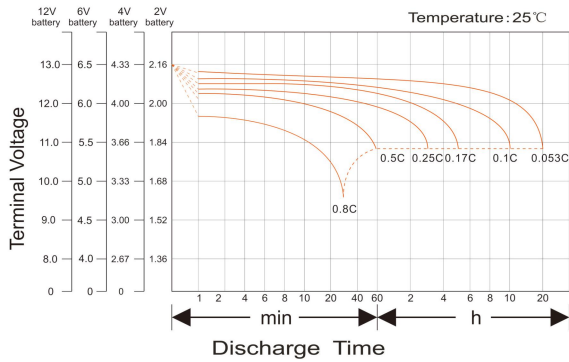
F.V/Time	30min	1h	2h	3h	5h	8h	10h	20h
1.85V/cell	667	459	311	236	158	117	96.6	51.2
1.80V/cell	695	494	323	249	163	120	101	53.5
1.75V/cell	723	523	335	256	171	126	106	56.3
1.70V/cell	754	556	345	262	177	128	108	57.4
1.65V/cell	790	594	350	266	179	130	110	58.2
1.60V/cell	834	639	352	268	181	131	111	58.6

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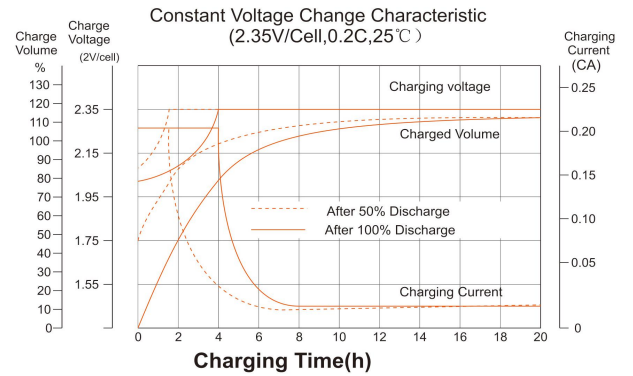
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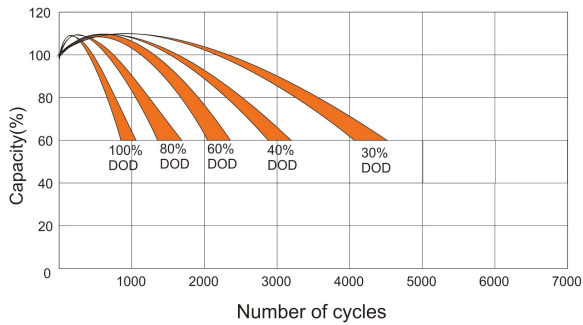
Discharge Characteristics Curve



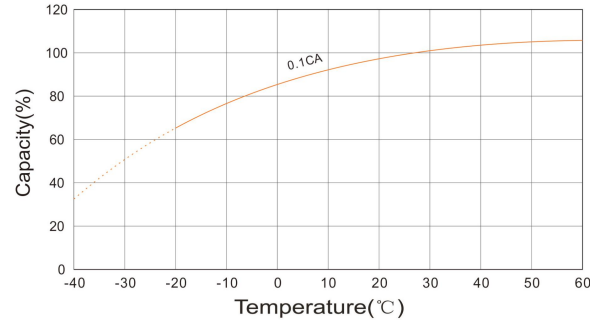
Charging Characteristics Curve



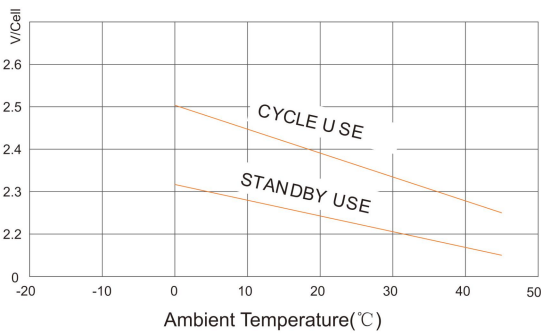
Cycle life in relation to depth of Discharge



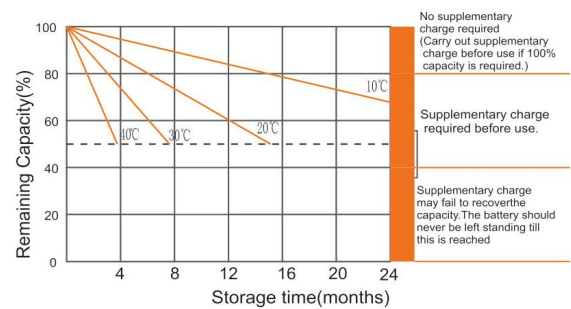
Temperature effects on Capacity



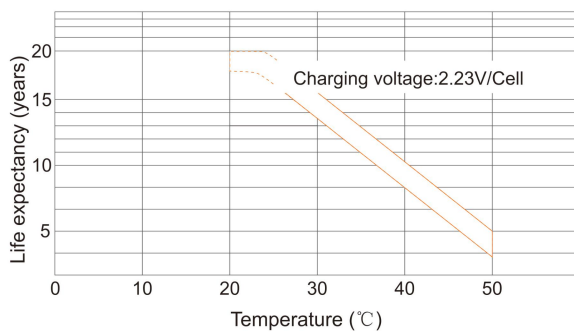
Relationship between charging voltage and temperature



Self-discharge Characteristics



Temperature effects on Float life



Life Characteristics of Standby use

