

12V GEL BATTERIES

Characteristics

Gel batteries designed for:

- all kind of communications, telecommunications
- supply and storage energy from solar/wind systems
- UPS
- Lighting
- alarm systems
- all types of vehicles powered with electricity
- Vessels

- Voltage: 12V
- Capacity: 33Ah - 250 Ah
- Lifespan: 12 years (20 °C)

- Manufactured from colloid of high quality, so that the distribution of electrolyte is symmetrical and no phenomenon that does not occur in laminating the electrolyte. The electrolyte remains in a gelatinous state and fixed, there is no flow or spill, allowing a uniform reaction of each plate.

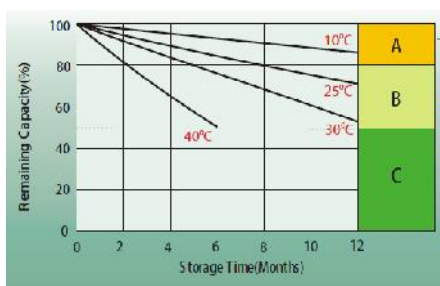
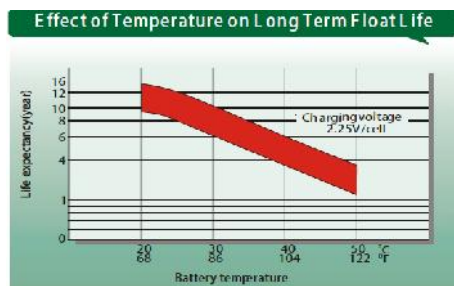
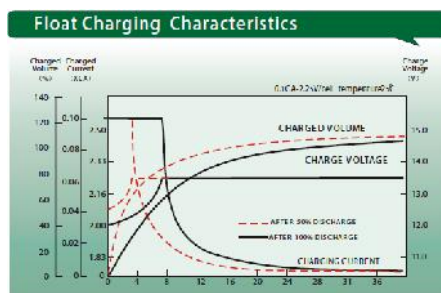
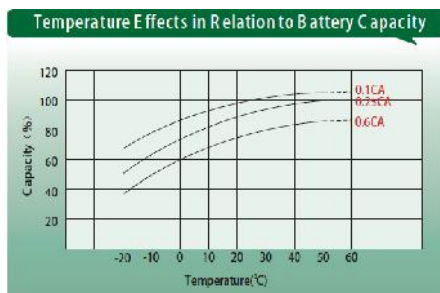
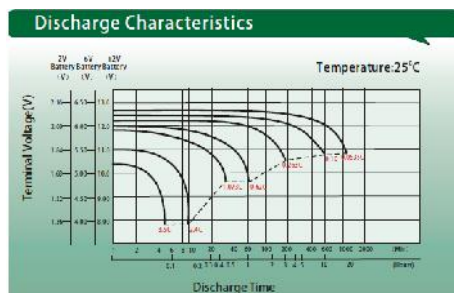
- Ability of anti-significant discharge of the battery can remain connected even under load even after discharge of 100%.

- Safety valve for high sensitivity and low pressure and adopted, allowing safe use of the battery.



12V GEL BATTERIES

Model	Capacity (Ah)	Battery Dimension (mm)				Weight (kg)	Price
		Length	Width	Height	Total Height		
BSM-BGEL12V33Ah	33	196	130	160	180	10,5	
BSM-BGEL12V40Ah	40	198	165	175	175	13	
BSM-BGEL12V45Ah	45	197	165	171	171	15,2	
BSM-BGEL12V50Ah	50	260	133	203	203	16,5	
BSM-BGEL12V55Ah	55	229	138	208	227	17,2	
BSM-BGEL12V65Ah	65	330	173	168	174	20,5	
BSM-BGEL12V70Ah	70	330	173	168	174	21,5	
BSM-BGEL12V75Ah	75	350	167	179	179	22,6	
BSM-BGEL12V90Ah	90	330	173	216	222	28	
BSM-BGEL12V100Ah	100	330	173	216	222	30	
BSM-BGEL12V120Ah	120	330	173	217	222	34	
BSM-BGEL12V150Ah	150	483	170	241	241	42	
BSM-BGEL12V200Ah	200	522	240	219	244	60	
BSM-BGEL12V250Ah	250	522	268	220	226	74	



Self Discharge Characteristics

A No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)

Supplementary charge required before use (optional charging way as below):

B

1. Charged for above 3 days at limited current 0.25CA and constant voltage 2.25V/cell.
2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
3. Charged for 8-10 hours at limited current 0.05CA.

C Supplementary charge may often fail to recover the capacity. The battery should never be left standing if this is reached.

Charging Procedures

Application	Charge Voltage(V/Cell)			Max.Charge Current
	Temperature	Set Point	Allowable Range	
Cycle Use	25°C (77°F)	2.45	2.40~2.50	0.25C
Standby	25°C (77°F)	2.275	2.25~2.30	

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/Cell	1.75	1.70	1.60	1.30
Discharge Current(A)	0.2C>(A)	0.2C<(A)<0.5C	0.5C<(A)<1.0C	(A)>1.0C

2V OPzV 12V GEL BATTERIES

Characteristics

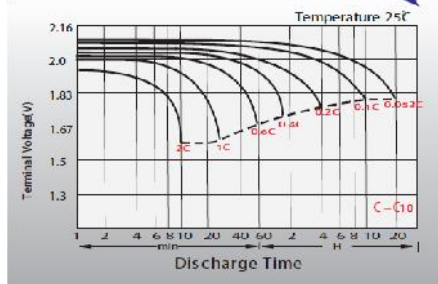
- OPzV batteries have an extremely long life and high reliability, could be used in harsh environments with low / high temperatures and poor electrical conditions.
- These products can be widely used in telecommunications, power generation, energy storage, UPS / EPS, fields, etc..
- OPzV batteries, manufactured with a tubular positive plate and a negative plate glued.
- Voltage: 2V
- Capacity: 200Ah - 3000Ah
- Life fluctuating load: 22 years at room temperature of $25\text{ °C} \pm 5\text{ °C}$
- Life Cycles: 5500 cycles on condition application with DoD standard of 25%
- Rate of self-discharge $\leq 3\%$ / month
- High recharge efficiency, saves time and energy
- Operating temperature: $-25\text{ °C} \sim 60\text{ °C}$.
- Storage life: after fully charged battery is stored about 2 years at 25 °C , the battery capacity is always greater than 50%, and battery capacity may reach 100% of rated capacity after being recharged.
- Proof performance good deep discharge: after a discharge of 100% DOD, the battery can still stay connected loads, and, after 4 weeks, recover the original capacity.



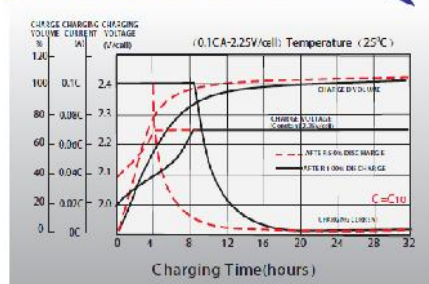
2V OPzV 12V GEL BATTERIES

Model	Capacity (Ah)	Battery Dimension (mm)				Weight (kg)	Price
		Length	Width	Height	Total Height		
BSM-BGEL2V200Ah	200	103	206	355	390	18.8	
BSM-BGEL2V250Ah	250	124	206	355	390	22.6	
BSM-BGEL2V300Ah	300	145	206	355	390	27.4	
BSM-BGEL2V350Ah	350	124	206	471	506	29.8	
BSM-BGEL2V420Ah	420	145	206	471	506	35.3	
BSM-BGEL2V490Ah	490	166	206	471	506	40.8	
BSM-BGEL2V600Ah	600	145	206	646	681	49.4	
BSM-BGEL2V800Ah	800	191	210	646	681	66.8	
BSM-BGEL2V1000Ah	1000	233	210	646	681	81.2	
BSM-BGEL2V1200Ah	1200	275	210	646	681	95.8	
BSM-BGEL2V1500Ah	1500	275	210	796	831	118.6	
BSM-BGEL2V2000Ah	2000	399	210	772	807	158.7	
BSM-BGEL2V2500Ah	2500	487	212	772	807	198.2	
BSM-BGEL2V3000Ah	3000	576	212	772	807	237.9	

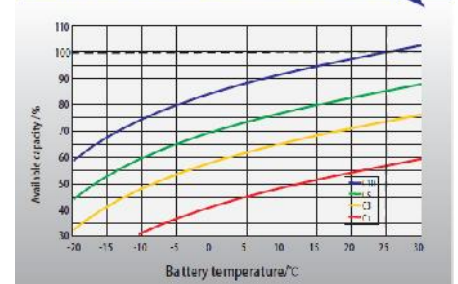
Discharge Characteristics



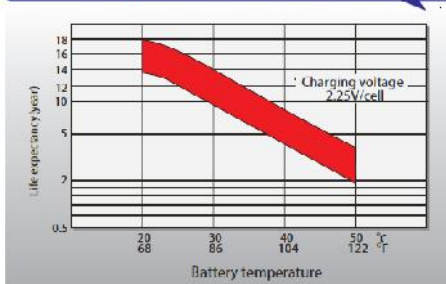
Float Charging Characteristics



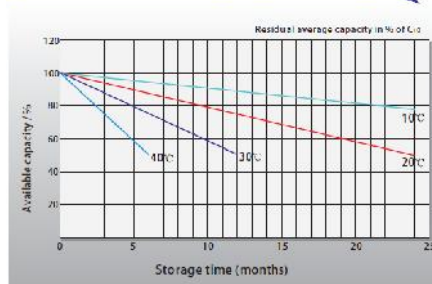
Temperature Effects in Relation to Battery Capacity



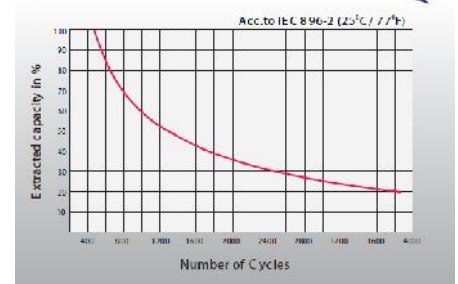
Effect of Temperature on Long Term Float Life



General Relation of Capacity VS. Storage Time



Cycle Life In Relation to Depth of Discharge



Charging Procedures

Application	Charge Voltage (V/Cell)			Max. Charge Current
	Temperature	Set Point	Allowable Range	
Standby	25°C (77°F)	2.23	2.21~2.25	0.2C

Discharge Current VS. Discharge Voltage

Discharge Current (A)	Final Discharge Voltage (V/Cell)
0.05C > A	1.90
0.15C > A ≥ 0.05C	1.80
0.20C > A ≥ 0.15C	1.75
0.40C > A ≥ 0.20C	1.70
A > 0.40C	1.60