

Solar GEL Deep Cycle Battery

Spaceflight Solar GEL Deep Cycle Battery is a hybrid GEL battery designed with deep cycle technology to provide extra-durable cycle performance for solar energy System. It offers more than 600 cycles at 80% DOD.

Applications

- Solar and wind power systems
- Communication systems
- Uninterruptible power supplies
- Alarm and security system

General Features

- 12 years designed floating life(25℃)
- Non-spillable construction
- Sealed and maintenance-free
- Excellent recovery from deep discharge
- High density active materials plates
- Longer Life and low self-discharge

Standards

- Compliance with IEC, BS, JIS and EU standards.
- UL, CE Certified
- ISO45001,ISO9001 and ISO14001 certified production facilities

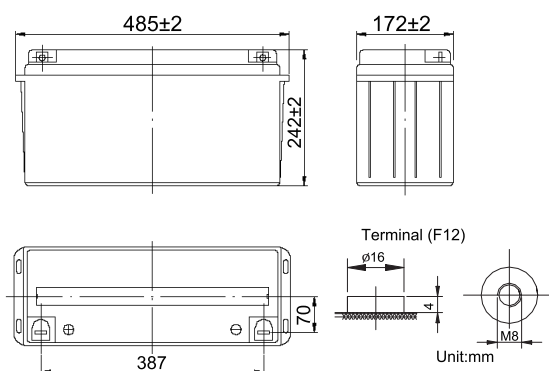
Specifications

Rated Voltage	12V	
Nominal Capacity	150Ah	(C ₁₀ , 10.8V)
Approx Weight	43kg±3%(94.8lbs)	
Terminal	F12	
Rated Capacity(25℃)	157 Ah	(20hr,7.85A,10.5V)
	150 Ah	(10hr,15A,10.8V)
	133 Ah	(5hr,26.6A,10.5V)
	97 Ah	(1hr,97.0A,9.6V)
Max.Discharge Current	1500A(5s)	
Max.Charge Current	37.5A	
Internal Resistance(25℃)	Approx 4.5mΩ	
Operating Temp.Range	Discharge	-20~60℃(-4~140°F)
	Charge	-10~50℃(14~122°F)
	Storage	-20~60℃(-4~140°F)
Nominal operating temperature	25±5℃	
Charge Voltage @25℃(77°F)	Cycle Use	Initial Charging Current less than 37.5A. Voltage 14.4V~15.0V at 25℃(77°F)Temp. Coefficient -30mV/°C
	Standby Use	Initial Charging Current less than 37.5A. Voltage 13.5V~13.8V at 25℃(77°F)Temp. Coefficient -20mV/°C
Temperature effects on capacity	40℃ (104°F)	103%
	25℃ (77°F)	100%
	0℃ (32°F)	86%
	-15℃ (5°F)	65%
Self Discharge(25℃)	Capacity after 3 months storage	91%
	Capacity after 6 months storage	82%
	Capacity after 12 months storage	65%



Dimensions

unit:mm



Length	485±2mm (19.1 inches)
Width	172±2mm (6.77 inches)
Container Height	242±2mm (9.52 inches)
Total Height	242±2mm (9.52 inches)

Battery Construction

Component	Positive plate	Negative plate	Container	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS(UL94-HB) or FR(UL94-V0)	Rubber	Copper	AGM	SiO ₂ +H ₂ SO ₄

Constant Current Discharge (Amperes) at 25℃(77°F)

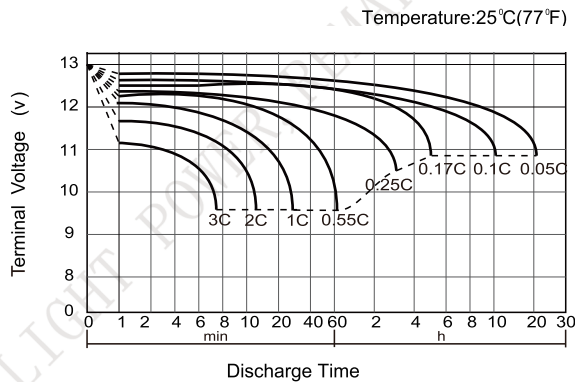
E.V/Time	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	445	347	282	163	97.0	40.1	28.1	15.5	7.93
1.65V	415	327	267	158	95.0	39.4	27.6	15.4	7.90
1.70V	384	306	253	153	93.0	38.5	27.1	15.3	7.90
1.75V	352	286	239	147	91.0	38.0	26.6	15.2	7.85
1.80V	317	263	226	144	89.0	37.4	26.0	15.0	7.80

Constant Power Discharge (Watts/cell) at 25℃(77°F)

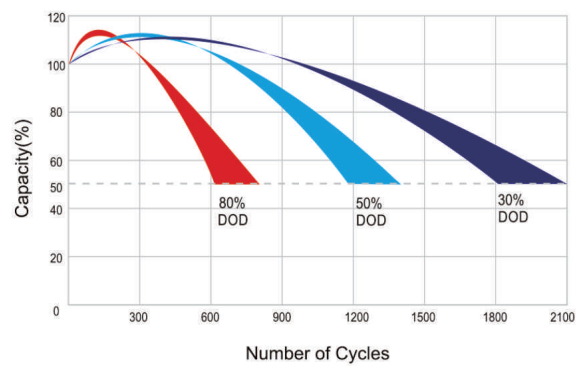
E.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	765	609	501	325	221	201	112	78.0	53.5
1.65V	734	579	483	315	216	198	110	77.1	53.2
1.70V	686	548	465	306	211	195	108	76.2	52.8
1.75V	638	519	446	296	206	190	106	75.3	52.5
1.80V	591	487	425	286	202	184	105	74.0	52.0

Note: The above characteristics data are average values obtained Within three charge/discharge cycles not the minimum.

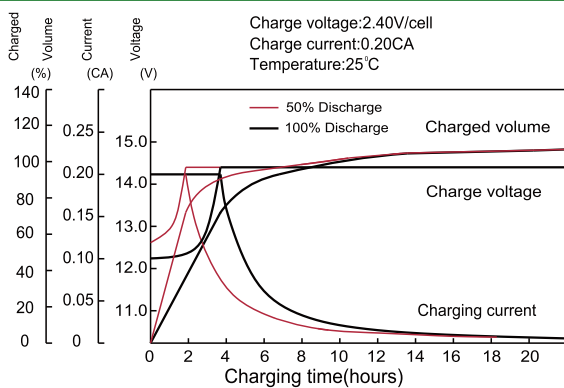
Discharge characteristic



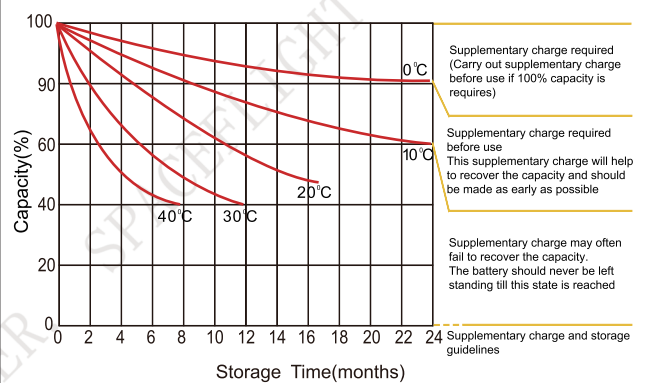
Cycle life in relation to depth of discharge



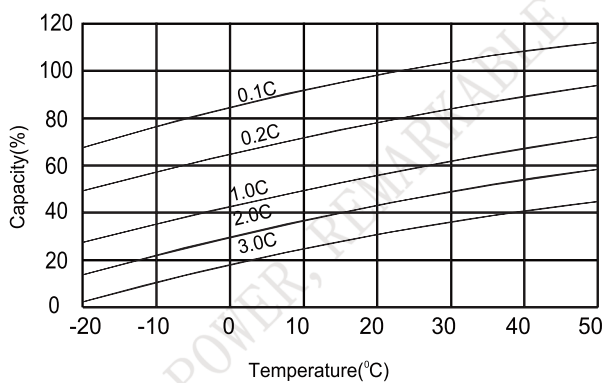
Charge characteristic curve



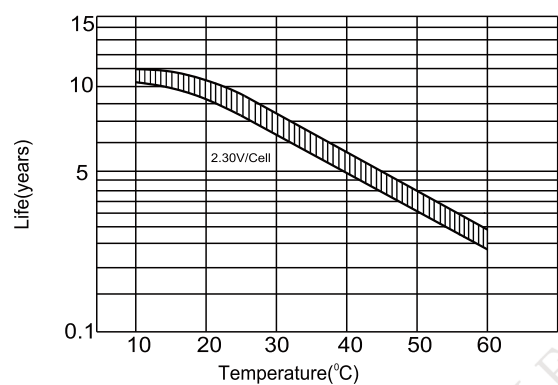
Storage Characteristics



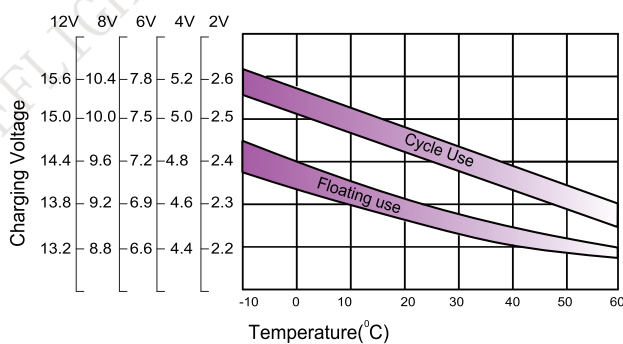
Temperature effects on capacity



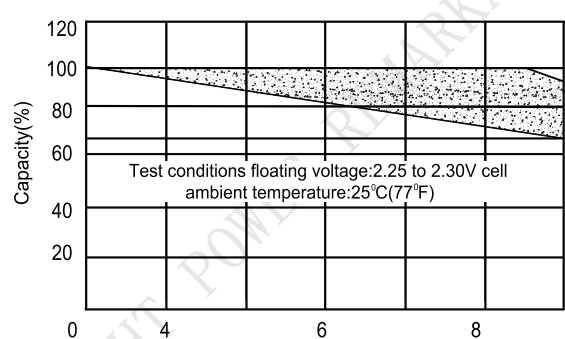
Temperature effects on float life



Relationship between charging voltage and temperature



Life characteristic of standby use



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