

Solar GEL Deep Cycle Battery

SHENGLONG 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 °C)
- 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

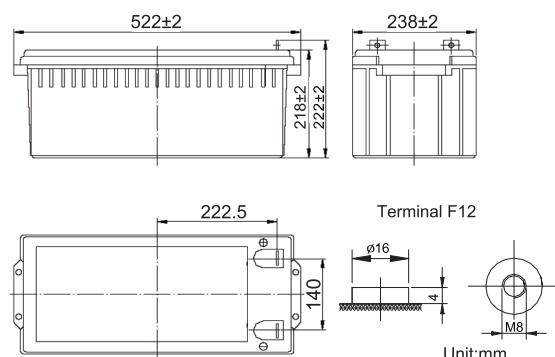
Specifications

Rated Voltage			12V
Nominal Capacity		200Ah	(C ₁₀ , 10.8V)
Approx Weight		58.5kg±3%(128.97lbs)	
Terminal			F12
Rated Capacity(25℃)	206	Ah	(20hr, 10.3A, 10.5V)
	200	Ah	(10hr, 20A, 10.8V)
	175	Ah	(5hr, 35A, 10.5V)
	125	Ah	(1hr, 125A, 9.6V)
Max.Discharge Current			2000A(5s)
Max.Charge Current			50A
Internal Resistance(25℃)			Approx4.0mΩ
Operating Temp.Range	Discharge		-20~60℃(-4~140℉)
	Charge		-10~50℃(14~122℉)
	Storage		-20~60℃(-4~140℉)
Nominal operating temperature			25±5℃
Charge Voltage @25℃(77℉)	Cycle Use	Initial Charging Current less than 50A. Voltage 14.4V~15.0V at 25℃(77℉)Temp. Coefficient -30mV/℃	
	Standby Use	Initial Charging Current less than 50A. Voltage 13.5V~13.8V at 25℃(77℉)Temp. Coefficient -20mV/℃	
Temperature effects on capacity	40℃	(104℉)	103%
	25℃	(77℉)	100%
	0℃	(32℉)	86%
	-15℃	(5℉)	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	522±2mm (20.6 inches)
Width	238±2mm (9.37 inches)
Container Height	218±2mm (8.58 inches)
Total Height	222±2mm (8.74inches)

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°C(77°F)

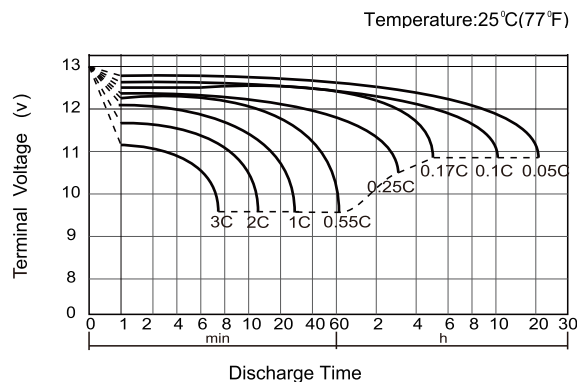
E.V/Time	5min	10min	15min	30min	1h	3h	5h	10h	20h
1.60V	/	418	340	204	125	52.0	36.6	20.7	10.5
1.65V	/	393	321	196	123	51.6	36.2	20.6	10.4
1.70V	/	370	300	189	121	51.0	35.7	20.5	10.4
1.75V	/	345	280	182	119	50.0	35.0	20.3	10.3
1.80V	/	318	260	175	117	48.8	34.3	20.0	10.2

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

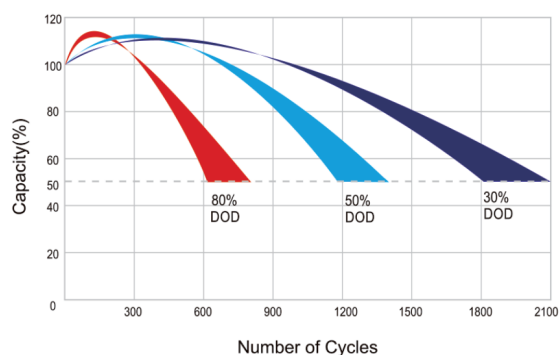
E.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	/	730	590	386	276	255	138	98.8	71.3
1.65V	/	694	570	370	270	250	136	97.5	70.8
1.70V	/	658	552	356	264	245	133	96.2	70.2
1.75V	/	623	530	342	259	240	130	94.8	69.7
1.80V	/	588	502	328	254	235	127	93.8	69.1

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

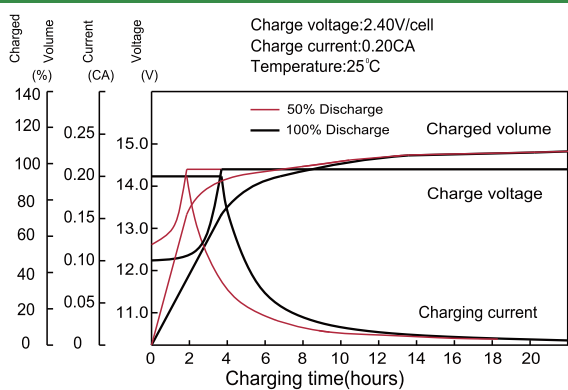
Discharge characteristic



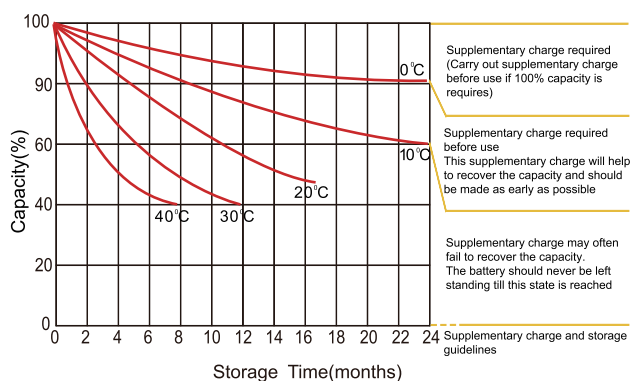
Cycle life in relation to depth of discharge



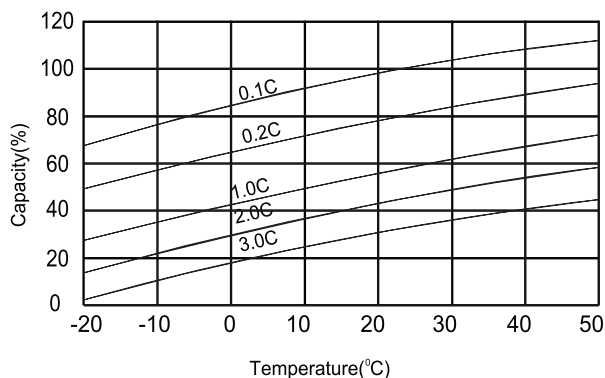
Charge characteristic curve



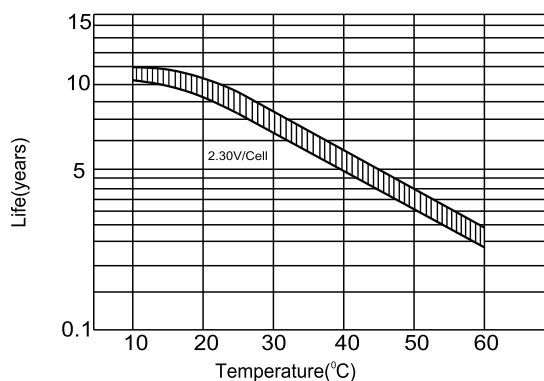
Storage Characteristics



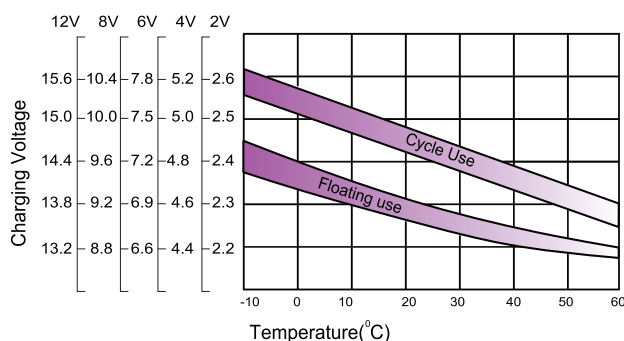
Temperature effects on capacity



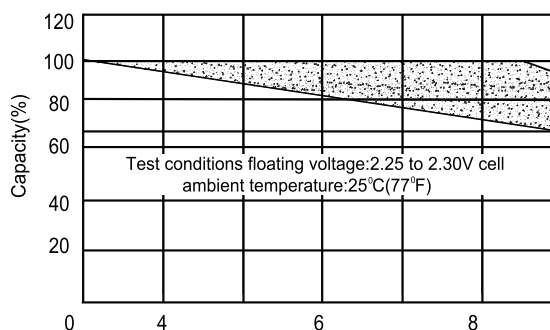
Temperature effects on float life



Relationship between charging voltage and temperature



Life characteristic of standby use



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