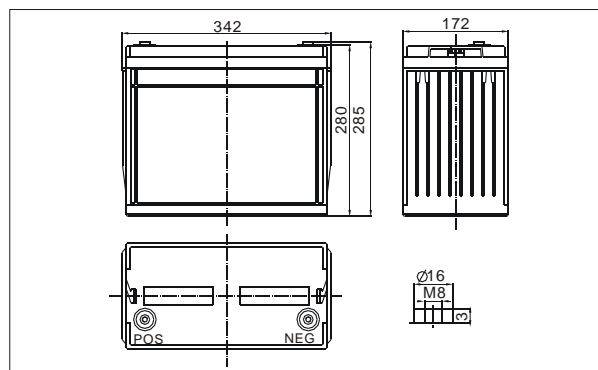


● **Outer dimensions (mm)**



TianChang sealed lead-acid rechargeable battery (VRLA battery) is leak-proof and maintenance free. The Superiority of VRLA battery is derived from its uniquely efficient oxygen recombination technology. The oxygen evolved from the positive plates diffuses through the micro porous glass fiber mat to the negative plates where it is changed back to water by recombination reaction, eliminating the need for water addition. The result is a maintenance free battery.

● **Battery Construction**

Component	Positive plate	Negative plate	Container	Cover	Safety valve	Terminal	Separator	Electrolyte
Raw material	Lead dioxide	Lead	ABS	ABS	Rubber	Copper	Fiberglass	Sulfuric acid

● **General Features**

- Absorbent Glass Mat (AGM) technology for efficient gas recombination of up to 99% and freedom from electrolyte maintenance or water adding.
- Not restricted for air transport-complies with IATA/ICAO Special Provision A67.
- UL-recognized component.
- Can be mounted in any orientation.
- Computer designed lead, calcium tin alloy grid for high power density.
- Long service life, float or cyclic applications.
- Maintenance-free operation.
- Low self discharge.

● **Application**

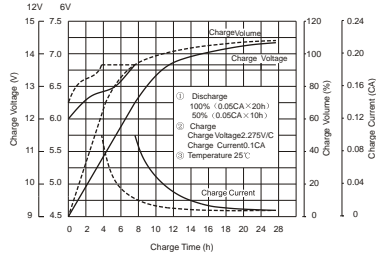
- Alarm System
- Medical Equipment
- Cable Television
- Control Equipment
- UPS
- Communication Equipment
- Toys
- Emergency power System
- Power Tools
- Security System

● **Specifications**

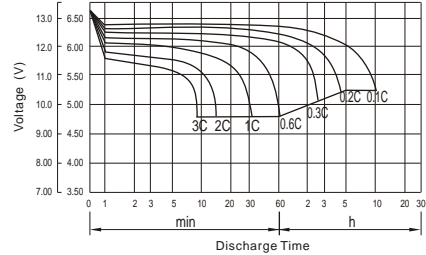
Nominal Voltage		12V
Capacity (10 hr 25°C)		134Ah
Design Life		10 Years
Dimensions	Length	342 mm (13.46 inch)
	Width	172 mm (6.77inch)
	Height	280 mm (11.02 inch)
	Total Height	285 mm (11.22 inch)
Approx. Weight		41.5 Kg
Capacity 25°C (77°F)	10 hr rate	134Ah
	3 hr rate	107.2Ah
	1 hr rate	87.1Ah
Internal Resistance (Full charged Battery at 25°C (77°F))		3.8m Ω

Capacity affected by Temperature (20hr)	40°C	102%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-Discharge at 25°C	3 month	Remaining capacity: 91%
	6 month	Remaining capacity: 82%
	12 month	Remaining capacity: 65%
Normal operating temperature		25°C ± 3°C (77°F ± 5°F)
Operating temperature range		-15°C ~ 50°C (5 ~ 122°F)
Float charging voltage (25°C)		13.60 to 13.80V
Cyclic charging voltage (25°C)		14.50 to 14.90V
Maximum charging current		40.2A
Terminal material		Copper
Maximum Discharge current		1072A (5sec)

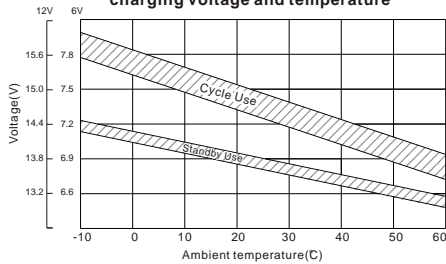
**Charge characteristic Curve for standby use**



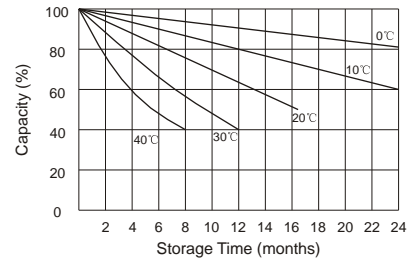
**Discharge characteristic (25°C/77°F)**



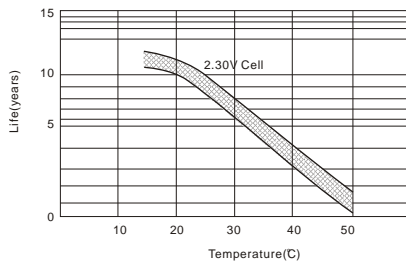
**Relationship between charging voltage and temperature**



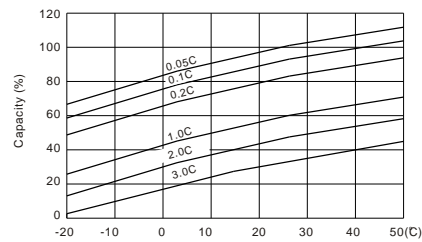
**Self-discharge characteristic**



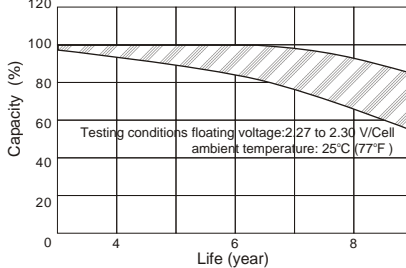
**Temperature effects on float life**



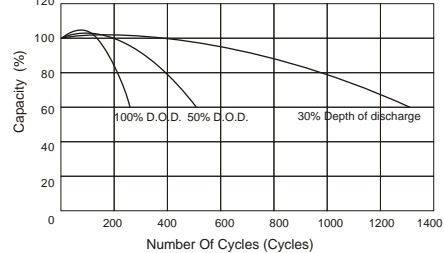
**Temperature effects on capacity**



**Life characteristics of Standby use**



**Cycle service life in relation to depth of discharge**



**Discharge Constant Current (Amperes at 77°F/25°C)**

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	408.2	297.9	243.1	151.0	87.10	52.12	36.02	29.52	24.17	16.65	14.07	7.741
10.0V	396.4	283.5	238.1	148.5	86.70	51.73	35.89	29.39	24.02	16.51	13.94	7.600
10.2V	384.6	273.4	234.4	147.2	85.89	51.33	35.61	29.25	23.88	16.37	13.80	7.459
10.5V	345.4	252.3	223.1	143.5	85.09	50.94	35.47	28.98	23.60	16.24	13.67	7.318
10.8V	311.8	230.1	205.7	137.2	83.08	50.03	34.51	28.29	23.17	15.97	13.53	7.178
11.1V	266.2	205.6	184.5	128.5	78.93	47.81	32.99	26.93	22.17	15.29	13.13	6.756

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

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	4222	3173	2674	1721	1006	614.3	428.7	351.9	288.3	198.7	168.2	92.81
10.0V	4139	3075	2631	1700	1004	611.0	428.8	351.5	287.6	197.8	167.1	91.20
10.2V	4092	2994	2601	1688	996.3	607.4	427.0	350.7	286.6	196.5	165.6	89.51
10.5V	3725	2788	2481	1649	987.4	602.9	425.3	347.4	283.2	194.9	164.0	87.82
10.8V	3393	2570	2294	1580	969.1	595.3	413.7	339.5	278.0	191.6	162.4	86.13
11.1V	2980	2324	2065	1484	927.7	573.2	395.8	323.1	266.1	183.5	157.5	81.07

(Note) The above characteristics data are average values.