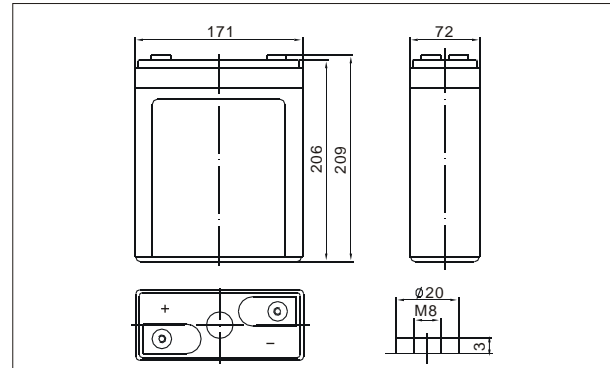


● **Outer dimensions (mm)**



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**

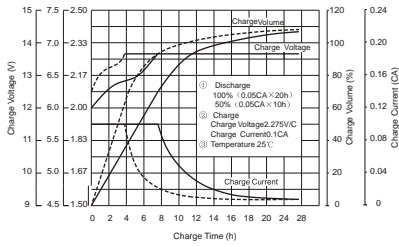
- Medical Equipment
- Cable Television
- Control Equipment
- UPS
- Communication Equipment
- Emergency power System
- Security System

● **Specifications**

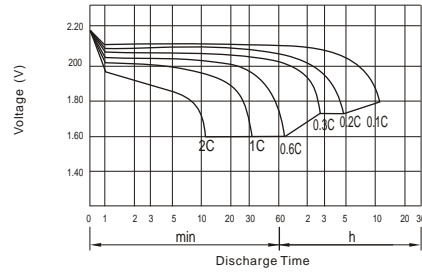
Nominal Voltage		2V
Capacity (10 hr 25°C)		100Ah
Design Life		20 Years
Dimensions	Length	171 mm (6.73 inch)
	Width	72 mm (2.83 inch)
	Height	206 mm (8.11 inch)
	Total Height	209 mm (8.23inch)
Approx.Weight		6.1 kg
Capacity 25°C(77°F)	10 hr rate	100Ah
	3 hr rate	80Ah
	1 hr rate	65Ah
Internal Resistance (Full charged Battery at 25°C(77°F))		0.9m 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)		2.27 to 2.30V
Cyclic charging voltage(25°C)		2.42 to 2.48V
Maximum charging current		20A
Terminal material		Copper
Maximum Discharge current		800A(5sec)

TC2-100

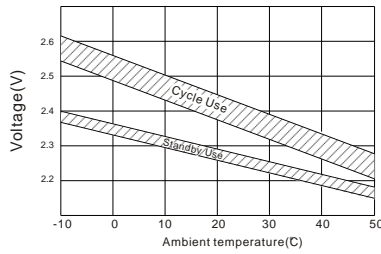
Charge characteristic Curve for standby use



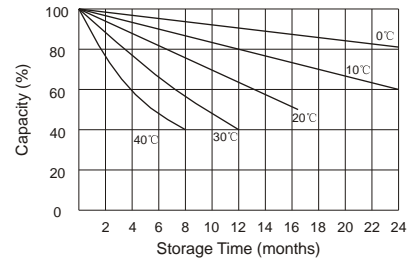
Discharge characteristic (25°C/77°F)



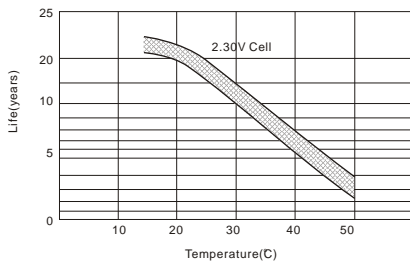
Relationship between charging voltage and temperature



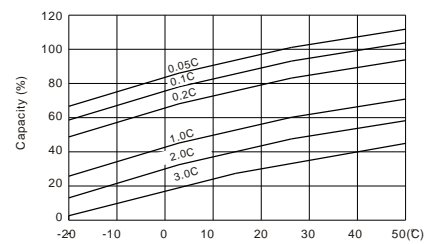
Self-discharge characteristic



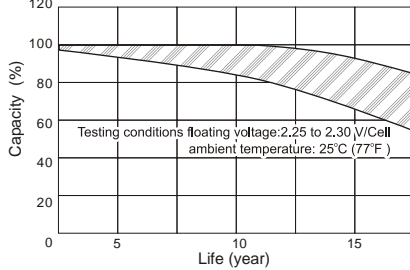
Temperature effects on float life



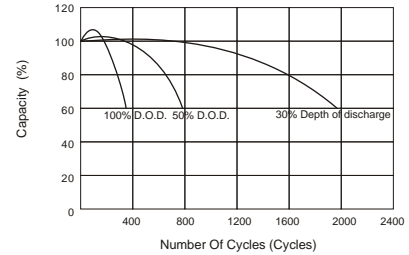
Temperature effects on capacity



Life characteristics of Standby use



Cycle service life in relation to depth of discharge



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

End Point Volts/Cell	10min	15min	30min	45min	1h	3h	5h	10h
1.60V	199	149	99	82	65.0	27.8	19.5	10.8
1.65V	189	142	95	79	62.6	26.9	19.1	10.6
1.70V	178	135	91	75	60.0	26.1	18.6	10.4
1.75V	167	127	86	72	57.3	25.0	18.0	10.2
1.80V	156	120	81	68	54.6	23.9	17.4	10.0

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

End Point Volts/Cell	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	289	261	199	149	124	74	54.0	39.6
1.65V	272	247	189	142	119	72	52.7	38.9
1.70V	255	233	179	135	114	70	51.3	38.1
1.75V	238	218	168	128	108	67	49.7	37.3
1.80V	221	204	158	121	102	64	48.1	36.4

All mentioned characteristics data are average values.