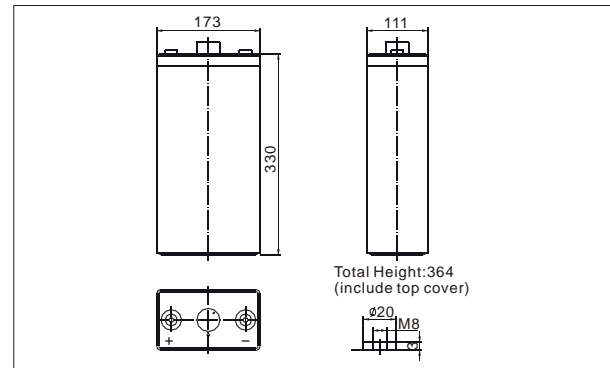


● **Outer dimensions (mm)**



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**

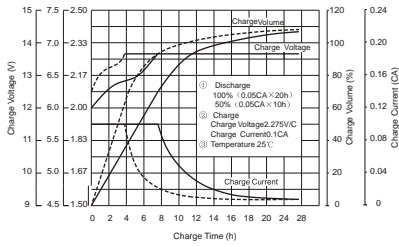
- Medical Equipment
- Cable Television
- Control Equipment
- UPS
- Communication Equipment
- Emergency power System
- Security System

● **Specifications**

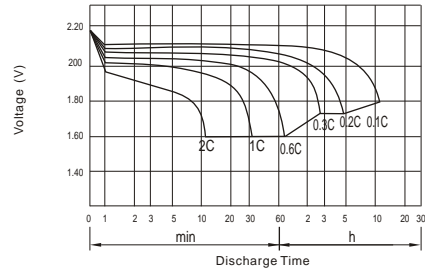
Nominal Voltage		2V
Capacity (10 hr 25°C)		200Ah
Design Life		20 Years
Dimensions	Length	173 mm (6.81 inch)
	Width	111mm (4.37 inch)
	Height	330 mm (12.99 inch)
	Total Height	364 mm (14.33inch)
Approx. Weight		13.5 Kg
Capacity 25°C (77°F)	10 hr rate	200Ah
	3 hr rate	160Ah
	1 hr rate	130Ah
Internal Resistance (Full charged Battery at 25°C (77°F))		0.70m 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		40A
Terminal material		Copper
Maximum Discharge current		1500A (5sec)

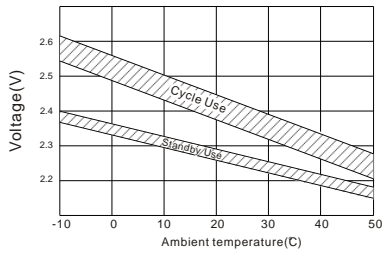
Charge characteristic Curve for standby use



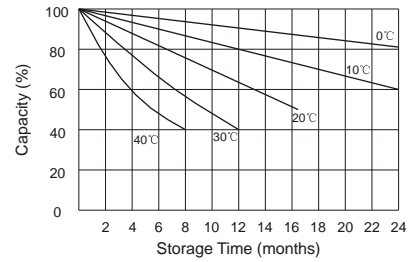
Discharge characteristic (25°C/77°F)



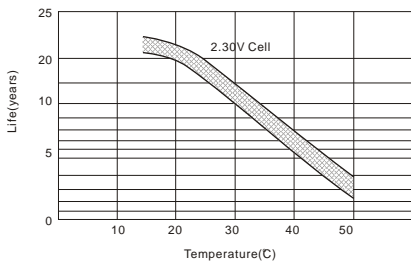
Relationship between charging voltage and temperature



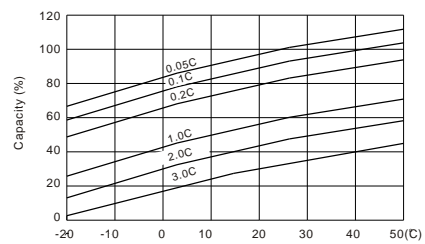
Self-discharge characteristic



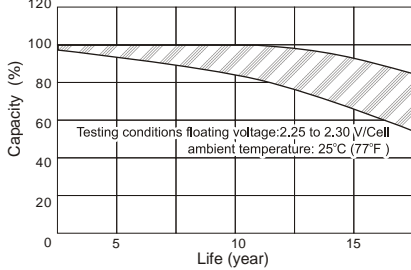
Temperature effects on float life



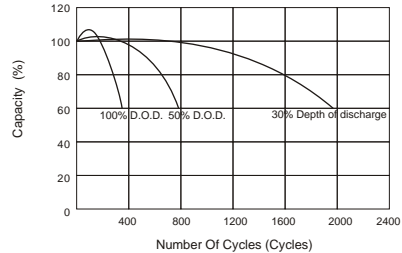
Temperature effects on capacity



Life characteristics of Standby use



Cycle service life in relation to depth of discharge



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

End Point Volts/Cell	10min	15min	30min	45min	1h	3h	5h	10h
1.60V	392	294	196	162	124	56.6	39.3	21.4
1.65V	372	280	187	155	120	54.8	38.4	21.2
1.70V	350	265	178	148	115	52.9	37.4	20.9
1.75V	329	250	169	141	110	50.8	36.3	20.5
1.80V	307	235	160	134	104	48.6	35.0	20.0

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

End Point Volts/Cell	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	580	524	380	308	245	146	106	78.0
1.65V	559	499	364	299	235	142	104	76.6
1.70V	538	473	348	289	224	137	101	75.1
1.75V	517	446	331	280	213	132	98.0	73.5
1.80V	495	420	315	272	201	126	94.7	71.7

All mentioned characteristics data are average values.