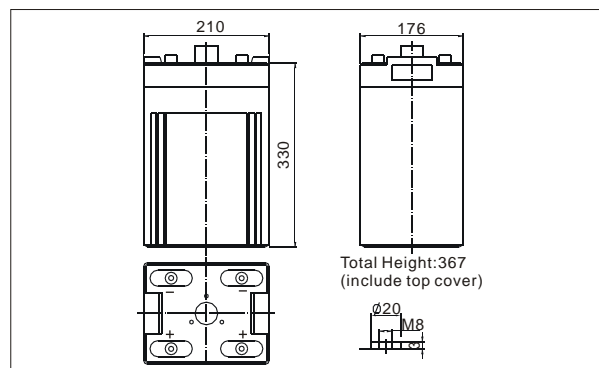


### ● Outer dimensions (mm)



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.

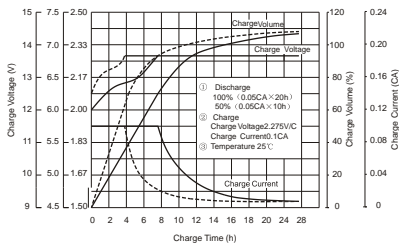
### ● Application

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

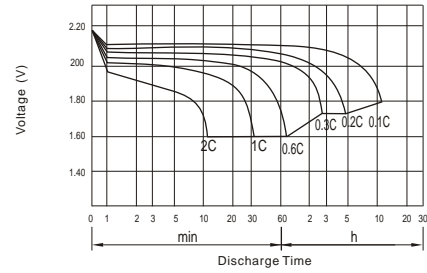
### ● Specifications

Nominal Voltage		2V
Capacity (10 hr 25°C)		400Ah
Design Life		20 Years
Dimensions	Length	210 mm (8.27 inch)
	Width	176mm (6.93 inch)
	Height	330 mm (12.99 inch)
	Total Height	367 mm (14.45inch)
Approx. Weight		<b>25.5 Kg</b>
Capacity 25°C (77°F)	10 hr rate	400Ah
	3 hr rate	320Ah
	1 hr rate	265Ah
Internal Resistance (Full charged Battery at 25°C (77°F))		0.50m 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		80A
Terminal material		Copper
Maximum Discharge current		2800A (5sec)

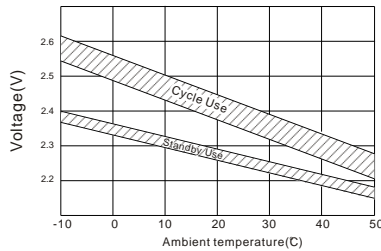
**Charge characteristic Curve for standby use**



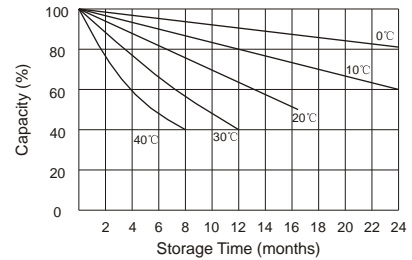
**Discharge characteristic (25°C/77°F)**



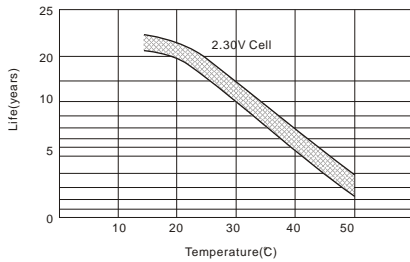
**Relationship between charging voltage and temperature**



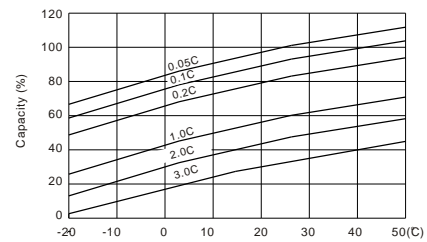
**Self-discharge characteristic**



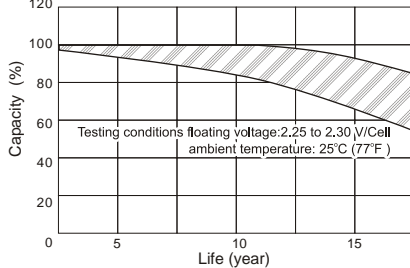
**Temperature effects on float life**



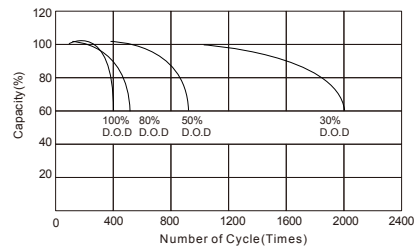
**Temperature effects on capacity**



**Life characteristics of Standby use**



**Battery Cycle life Vs. Depth of Discharge(DOD)**



**Discharge Constant Current (Amperes at 77°F25°C)**

End Point Volts/Cell	10min	15min	30min	45min	1h	3h	5h	10h
1.60V	732	587	427	325	247	114	77.7	43.0
1.65V	694	559	408	312	238	110	75.9	42.4
1.70V	654	530	388	298	229	106	74.0	41.7
1.75V	614	500	368	284	219	102	72.0	40.9
1.80V	573	470	347	269	208	98	69.4	40.0

**Discharge Constant Power (Watts at 77°F25°C)**

End Point Volts/Cell	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	1281	909	740	641	493	310	214	140
1.65V	1206	860	703	610	471	286	209	138
1.70V	1131	810	665	576	449	270	203	135
1.75V	1057	760	626	543	425	260	197	132
1.80V	983	710	587	509	401	246	185	125

All mentioned characteristics data are average values.