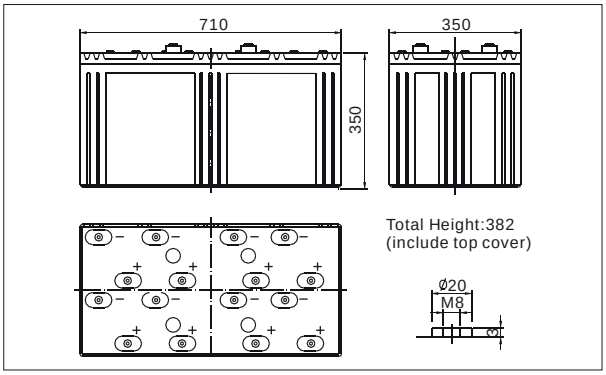
TC2-3000

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

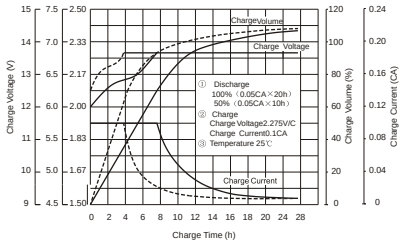
- Medical Equipment
- Cable Television
- Control Equipment
- UPS
- Communication Equipment
- Emergency power System
- Security System

Specifications

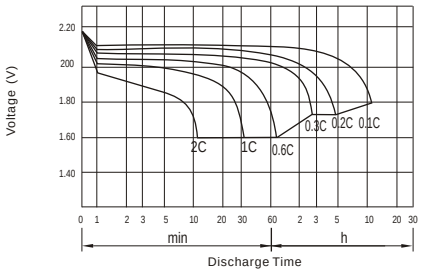
Nominal Voltage		2V
Capacity (10 hr 25℃)		3000Ah
Design Life		20 Years
Dimensions	Length	710 mm (27.95 inch)
	Width	350 mm (13.78 inch)
	Height	350 mm (13.78 inch)
	Total Height	382 mm (15.04inch)
Approx.Weight		185 Kg
Capacity 25℃(77℉)	10 hr rate	3000Ah
	3 hr rate	2400Ah
	1 hr rate	1950Ah
Internal Resistance (Full charged Battery at 25℃(77℉)		0.10mΩ

Capacity affected by Temperature (20hr)	40℃	102%
	25℃	100%
	0℃	85%
	-15℃	65%
Self-Discharge at 25℃	3 month	Remaining capacity: 91%
	6 month	Remaining capacity: 82%
	12 month	Remaining capacity: 65%
Normal operating temperature		25℃ ±3℃(77℉ ±5℉)
Operating temperature range		-15℃~50℃(5~122℉)
Float charging voltage(25℃)		2.27 to2.30V
Cyclic charging voltage(25℃)		2.42 to 2.48V
Maximum chaging current		600A
Terminal material		Copper
Maximum Dischage current		15000A(5sec)

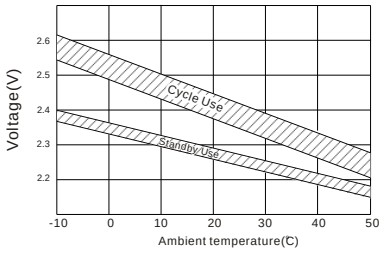
Charge characteristic Curve for standby use



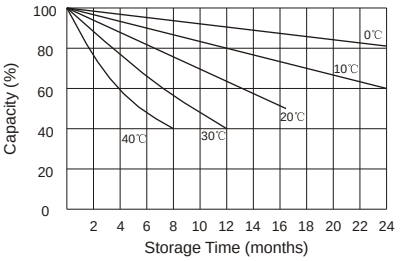
Discharge characteristic (25°C/77°F)



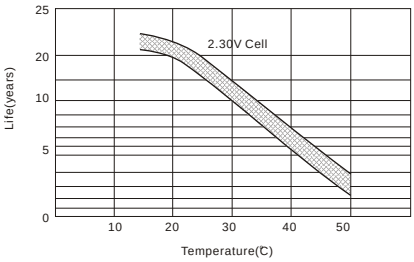
Relationship between charging voltage and temperature



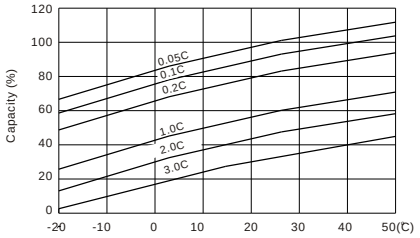
Self-discharge characteristic



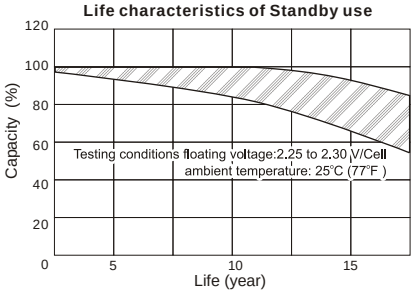
Temperature effects on float life



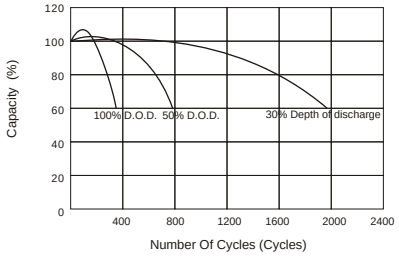
Temperature effects on capacity



Life characteristics of Standby use



Cycle service life in relation to depth of discharge



Discharge Constant Current (Amperes at 77ºF25ºC)

End Point Volts/Cell	10min	15min	30min	45min	1h	3h	5h	10h
1.60V	5165	4033	2989	2173	1860	836	582	321
1.65V	4896	3839	2857	2086	1803	809	570	318
1.70V	4617	3639	2720	1994	1747	785	560	313
1.75V	4331	3436	2579	1898	1688	750	540	307
1.80V	4041	3230	2434	1800	1642	717	530	300

Discharge Constant Power (Watts at 77ºF25ºC)

End Point Volts/Cell	10min	15min	30min	45min	1h	2h	3h	5h
1.60V	7748	6050	4484	3477	2976	2040	1423	922
1.65V	7344	5759	4286	3338	2895	2017	1386	906
1.70V	6926	5459	4088	3199	2814	1942	1346	888
1.75V	6497	5154	3890	3060	2733	1859	1302	869
1.80V	6062	4845	3692	2921	2652	1770	1268	826

All mentioned characteristics data are average values.