



HKEx Code: 00819



TNC Series

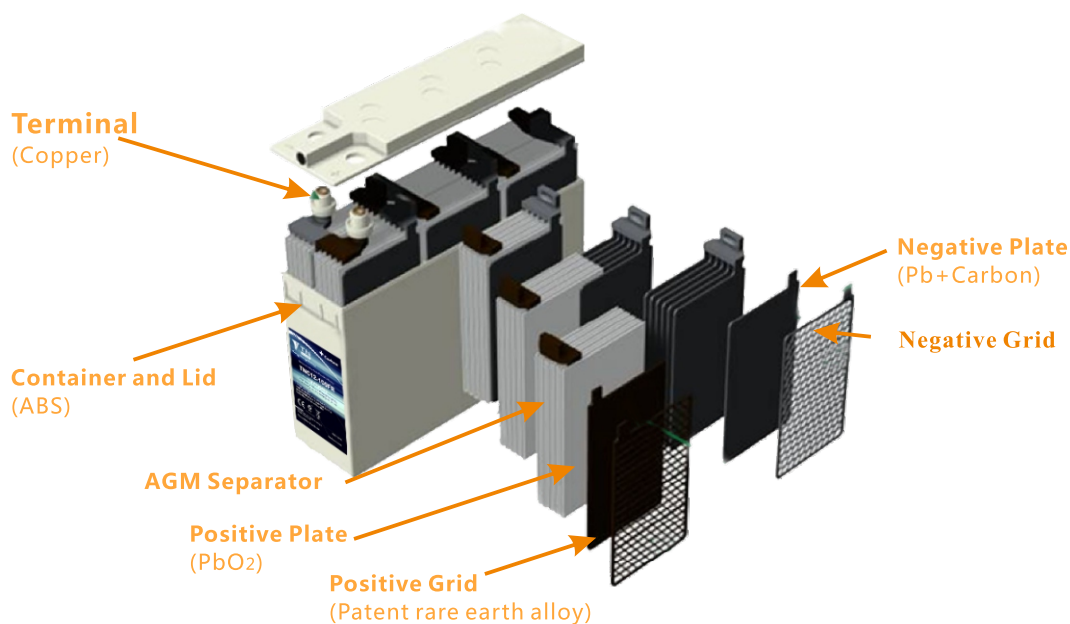
Maintenance Free VRLA Battery
Lead Carbon Technology



www.tiannenggroup.com

Energy Storage Battery-TNC Series (Lead Carbon Battery)

The TNC series adopts newest lead carbon technology which add carbon material into negative electrode to slow down the sulfation, The TNC series battery provides not only high energy density, but also high power, rapid charge and discharge, longer cycle life. It's very suitable for renewable energy storage or where commercial power is unstable.



- ☑ 12V(38~250Ah), 2V (200~1500Ah), 12V front terminal (100/150/200Ah)
- ☑ The carbon can greatly slow down the sulfate of negative plate due to the PSOC cycle application
- ☑ Excellent partial stage of charge (PSOC) cycle performance.12V: 2200 cycles@60%DOD, 2V: 3600 cycles@60% DOD
- ☑ Excellent recharge acceptance performance, super fast charge/large discharge performance.
- ☑ Extreme temperature tolerance, capacity increased 16% at -20°C

Note:

PSOC cycle: the battery is partially discharged, but at the same time the battery also can not be charge fully recharged every cycle because of uncontrolled charged time.

CONSTRUCTION

- ✦ **Positive plate** – Thick patent rare earth alloy grid with special paste for corrosion resistance
- ✦ **Negative plate** – Balanced Pb-Ca grid for improved recombination efficiency, Mixed carbon into negative plate active material to slow down the sulfation.
- ✦ **Separator** – Advanced AGM separator for high pressure cell design
- ✦ **Electrolyte** – -Dilute high purity sulphuric acid.
- ✦ **Battery container and cover** – ABS UL94-HB (Flame-retant ABS UL94-V0 is optional)

APPLICATION

- Renewable energy system
- Hybrid solar power system
- Uninterrupted Power Supply (UPS)
- Communications and electric equipment
- Emergency lighting equipment
- Fire alarm and security systems
- Robots, control equipment, and other factory automation equipment
- Emergency power supply (EPS)
- Various power toys and hobby equipment
- Lighting equipment

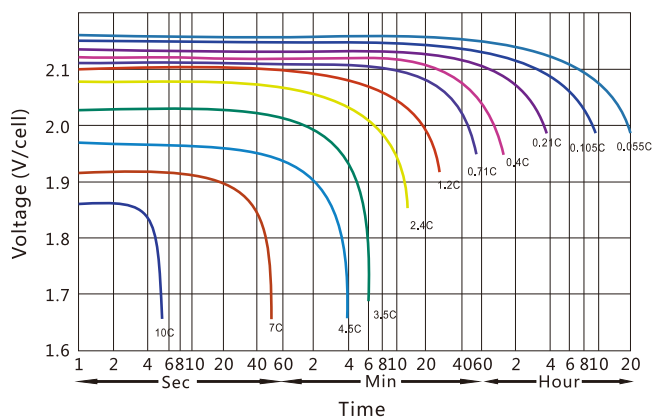
Product Specification

S/N	Model	Nomina Voltage (V)	Nominal capacity C10 (AH)	Nominal capacity C100 (AH)	Dimension (mm)				Dimension (Inch)				Terminal
					L	W	H	TH	L	W	H	TH	
1	TNC12-38	12	38	49.4	198.5	166	169.5	169.5	7.81	6.54	6.67	6.67	I3
2	TNC12-50	12	50	65.0	229	138.5	211	216	9.02	5.45	8.31	8.50	I3
3	TNC12-65	12	65	84.5	260	168	211	213.5	10.2	6.61	8.31	8.41	I3
4	TNC12-80	12	80	104	306.5	168	208.5	211	12.1	6.61	8.21	8.31	I3
5	TNC12-100	12	100	130	330	172	214	221.5	13.0	6.77	8.43	8.72	I7
6	TNC12-120	12	120	156	408	177	224	224	16.1	6.97	8.82	8.82	I7
7	TNC12-150	12	150	195	480	170	240	240	18.9	6.69	9.45	9.45	I7
8	TNC12-200	12	200	260	520	239	220	225	20.5	9.41	8.66	8.86	I7
9	TNC12-250	12	250	325	522	268	220	225	20.6	10.6	8.66	8.86	I7
10	TNC2-200	2	200	260	170	106	330	341.5	6.69	4.17	13.0	13.4	I7
11	TNC2-300	2	300	390	170	150	330	341.5	6.69	5.91	13.0	13.4	I7
12	TNC2-400	2	400	520	196	171	330	341.5	7.72	6.73	13.0	13.4	I7
13	TNC2-500	2	500	650	240	170	330	341.5	9.45	6.69	13.0	13.4	I7
14	TNC2-600	2	600	780	285	170	330	341.5	11.22	6.69	13.0	13.4	I7
15	TNC2-800	2	800	1040	382	170	330	341.5	15.04	6.69	13.0	13.4	I7
16	TNC2-1000	2	1000	1300	470	170	330	341.5	18.50	6.69	13.0	13.4	I7

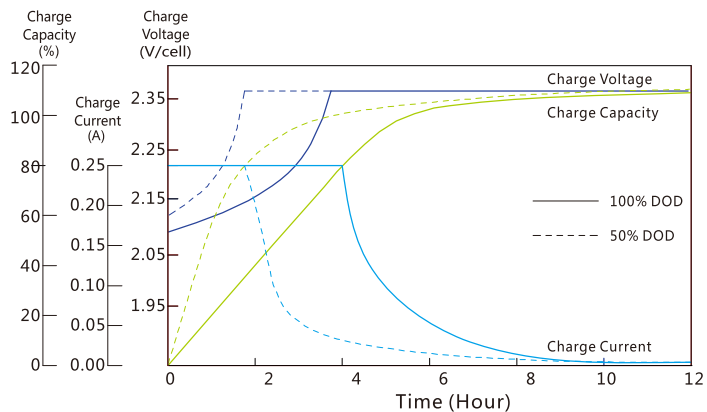


Performance Curve

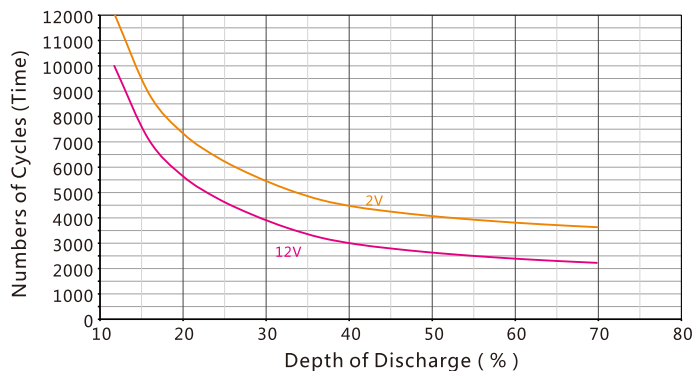
Discharging Characteristics (25°C/77°F)



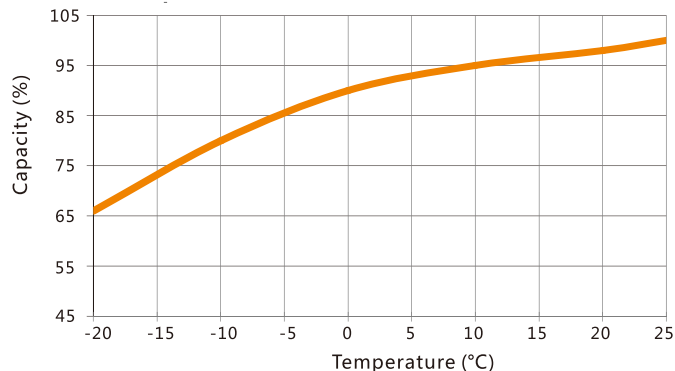
Charging Characteristics (25°C/77°F)



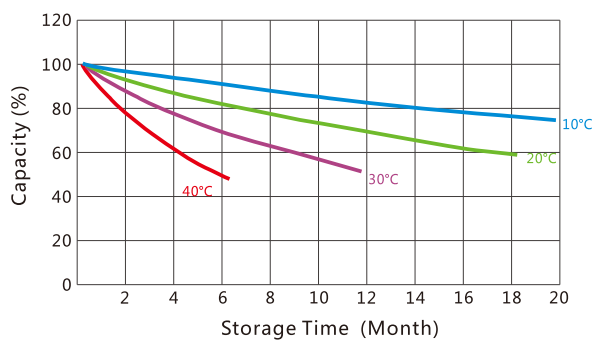
Cycle Life with Depth of Discharge



Capacity Effected by Temperature

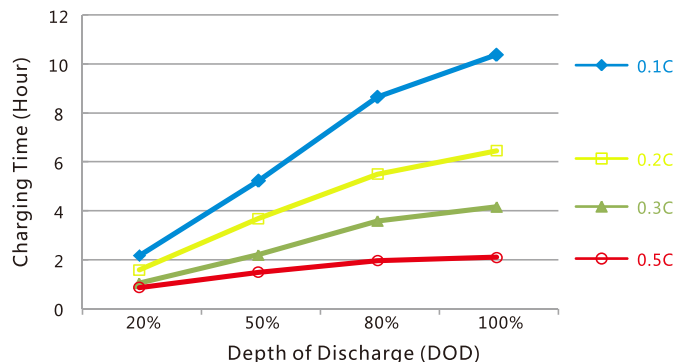


Self Discharge Characteristics



The lead acid battery need to be recharged every 6 months during storage

Charging Time with Depth of Discharge



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