

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



## Industry Battery-General Purpose AGM Battery-TN Series

# TN12-9.0

(12V 9.0Ah)

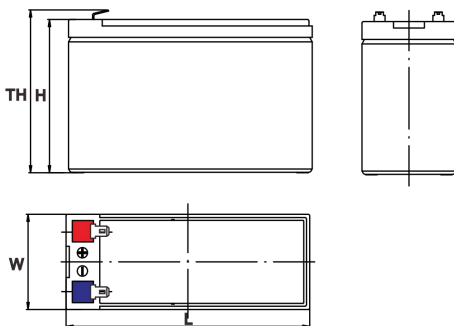
### GENERAL FEATURES

- ♦ Oxygen recombination technology: maintenance-free, no need to add water or acid
- ♦ The patent grid alloy: less gassing, low self-discharge, excellent corrosion resistance
- ♦ Design life is 3~5 years at 25°C under standby application, deep discharge recoverability
- ♦ High quality AGM separator: extend cycle life and prevent micro short circuit
- ♦ ABS container: increase the strength of battery (Flame-retardant ABS UL94-V0 is optional)

### Dimension

Unit:mm

Length	151±2mm / 5.94inch
Width	65.5±2mm / 2.58inch
Container Height	93.5±3mm / 3.68inch
Total Height	99.5±3mm / 3.92inch



### Application

- ♦ Uninterrupted Power Supply ( UPS )
- ♦ Communications and electric equipment
- ♦ Emergency lighting equipment
- ♦ Fire alarm and security system
- ♦ Robots, control equipment, and other factory automation equipment
- ♦ Emergency power supply ( EPS )
- ♦ Portable VTR/TV, radio and so on
- ♦ Power tools, lawn mowers, vacuum cleaners
- ♦ Cameras and photographic equipment
- ♦ Portable measuring equipment
- ♦ Portable telephone sets
- ♦ Various power toys and hobby equipment
- ♦ Lighting equipment

### Terminal

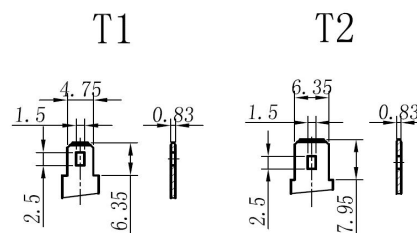
Unit:mm

Terminal Type: T1/T2

### Weight

2.66kg

5.86lbs



ISO9001 ISO14001 OHSAS18001

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Tianneng Battery Group Co., Ltd.

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# TN12-9.0

## Specificaion

<b>Nominal Voltage</b>	12V	
<b>Rated Capacity(25°C)</b>	8.85Ah	20hr Rate(1.80V/cell )
	8.26Ah	10hr Rate(1.80V/cell )
	7.55Ah	5hr Rate(1.75V/cell )
	6.87Ah	3hr Rate(1.70V/cell )
	5.61Ah	1hr Rate(1.60V/cell )
<b>Container Material</b>	ABS ( Flame-retardant ABS UL94-V0 is optional )	
<b>Operating Temperature Range</b>	<b>Discharge</b>	-20 ~ +50°C
	<b>Charge</b>	0 ~ +40°C
	<b>Storage</b>	-15 ~ +40°C
<b>Capacity Effected by Temperature</b>	<b>40°C / 104°F</b>	106%
	<b>25°C / 77°F</b>	100%
	<b>0°C / 32°F</b>	86%
	<b>-10°C / 14°F</b>	65%
<b>Charge</b>	<b>Float Voltage</b>	2.23 -2.27V/cell@25°C, Tem.Coefficient : -3mV/cell/°C
	<b>Equalize Voltage</b>	2.35 -2.40V/cell@25°C, Tem.Coefficient : -3mV/cell/°C
	<b>Cycle Voltage</b>	2.40 -2.50V/cell@25°C, Tem.Coefficient : -5mV/cell/°C
<b>Max. Charging Current</b>	2.7A ( 0.3C )	
<b>Max. Discharge Current (5S)</b>	134.5A	
<b>Internal Resistance</b>	17mΩ	
<b>Self-Discharge</b>	<3%, TN series stored at 25 °C require a supplementary charge every six months, the charging interval would shrink when the ambient temperature went higher	

## Discharge Performance

Constant Current Discharge Table (25°C/77°F) Unit: A

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	20.4	14.5	12.2	10.3	7.7	5.8	4.64	2.77	2.06	1.67	1.40	1.21	0.96	0.784	0.432
1.80V/cell	24.4	16.7	13.6	11.3	8.4	6.3	4.99	2.96	2.19	1.76	1.48	1.27	1.01	0.826	0.442
1.75V/cell	27.2	18.1	14.7	12.1	8.8	6.5	5.17	3.04	2.24	1.79	1.51	1.29	1.03	0.839	0.452
1.70V/cell	29.7	19.6	15.4	12.6	9.1	6.7	5.32	3.12	2.29	1.84	1.53	1.31	1.04	0.849	0.457
1.67V/cell	32.2	20.6	16.0	13.0	9.4	6.9	5.49	3.18	2.34	1.86	1.56	1.33	1.05	0.859	0.461
1.60V/cell	33.9	21.4	16.6	13.3	9.7	7.1	5.61	3.25	2.38	1.90	1.58	1.36	1.06	0.866	0.464

Constant Power Discharge Table (25°C/77°F) Unit: W

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	38.4	27.5	23.3	20.0	15.1	11.2	9.03	5.39	4.04	3.28	2.78	2.42	1.91	1.582	0.873
1.80V/cell	45.4	31.4	25.9	22.0	16.4	12.1	9.66	5.76	4.27	3.46	2.91	2.53	2.01	1.655	0.890
1.75V/cell	50.4	34.0	27.8	23.1	17.0	12.5	10.00	5.90	4.35	3.50	2.95	2.55	2.03	1.676	0.905
1.70V/cell	54.0	36.2	28.8	23.8	17.5	12.8	10.19	6.01	4.43	3.55	2.98	2.58	2.04	1.686	0.908
1.67V/cell	57.8	37.7	29.6	24.4	17.9	13.0	10.41	6.07	4.49	3.58	3.01	2.59	2.05	1.697	0.910
1.60V/cell	59.5	38.2	30.1	24.6	18.1	13.2	10.51	6.16	4.52	3.62	3.04	2.62	2.06	1.707	0.912

□ 动力电池

■ 储能电池

■ 备用电池

□ 摩托车电池



## 阀控式免维护铅酸蓄电池-通用型

# TN12-9.0

(12V 9.0Ah)

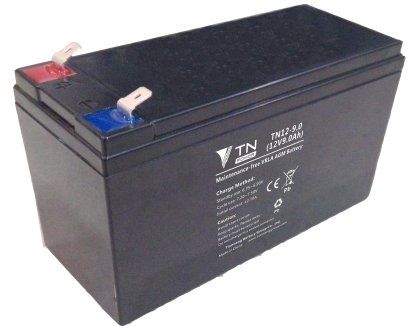
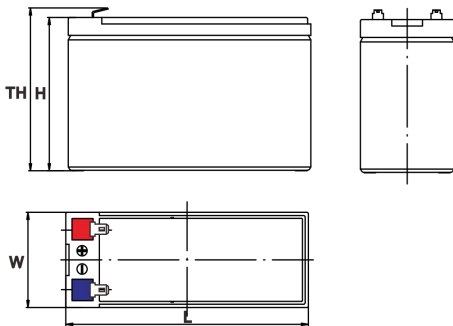
### 产品特点

- ◆ 阀控式免维护设计，寿命期间无需加水或加酸
- ◆ 专利稀土合金板栅，减少气体产生，自放电率低，抗腐蚀能力出众
- ◆ 在25°C下，产品浮充设计寿命为3~5年，优良的深放电恢复能力
- ◆ 高质量AGM隔板：防止微短路，延长循环寿命
- ◆ ABS壳盖：电池外壳强度高（阻燃壳体UL94-V0可选）

### 尺寸

单个尺寸

长	151±2mm
宽	65.5±2mm
高	93.5±3mm
总高	99.5±3mm



### 产品应用

- ◆ 不间断电源(UPS)
- ◆ 通信和电力设备
- ◆ 紧急照明设备
- ◆ 火灾报警及安防系统
- ◆ 机器人、控制设备及其他机械自动化设备
- ◆ 应急电源系统
- ◆ 便携式音频设备
- ◆ 电动工具，割草机，真空吸尘器
- ◆ 照相设备
- ◆ 便携式测量工具
- ◆ 便携式通话设备
- ◆ 各式电动玩具及娱乐设施
- ◆ 照明设备

### 端子类型

单位:mm

端子类型 T1/T2

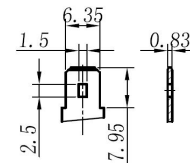
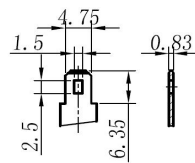
### 重量

2.66kg

5.86lbs

T1

T2



ISO9001 ISO14001 OHSAS18001

内容如有改动，恕不另行通知

动力电池

储能电池

备用电池

摩托车电池



## TN12-9.0

### 规格书

额定电压	12V	
容量(25°C)	8.85Ah	20hr Rate(1.80V/cell)
	8.26Ah	10hr Rate(1.80V/cell)
	7.55Ah	5hr Rate(1.75V/cell)
	6.87Ah	3hr Rate(1.70V/cell)
	5.61Ah	1hr Rate(1.60V/cell)
壳体材料	ABS (阻燃ABS壳体可选)	
使用温度范围	放电	-20 ~ +50°C
	充电	0 ~ +40°C
	储存	-15 ~ +40°C
不同温度下 电池容量系数	40°C / 104°F	106%
	25°C / 77°F	100%
	0°C / 32°F	86%
	-10°C / 14°F	65%
充电	浮充电压	2.23 -2.27V/单格@25°C, 温度补偿系数: -3mV/单格/°C
	均充电压	2.35 -2.40V/单格@25°C, 温度补偿系数: -3mV/单格/°C
	循环使用电压	2.40 -2.50V/单格@25°C, 温度补偿系数: -5mV/单格/°C
最大充电电流	2.7A (0.3C)	
最大放电电流 (5S)	134.5A	
电阻	17mΩ	
自放电	<3%, TN系列储存在25°C 时需每6个月进行一次补充充电, 环境温度更高时则充电间隔时间越短	

### 放电性能

恒电流放电表 (25°C/77°F) 单位: A															
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	20.4	14.5	12.2	10.3	7.7	5.8	4.64	2.77	2.06	1.67	1.40	1.21	0.96	0.784	0.432
1.80V/cell	24.4	16.7	13.6	11.3	8.4	6.3	4.99	2.96	2.19	1.76	1.48	1.27	1.01	0.826	0.442
1.75V/cell	27.2	18.1	14.7	12.1	8.8	6.5	5.17	3.04	2.24	1.79	1.51	1.29	1.03	0.839	0.452
1.70V/cell	29.7	19.6	15.4	12.6	9.1	6.7	5.32	3.12	2.29	1.84	1.53	1.31	1.04	0.849	0.457
1.67V/cell	32.2	20.6	16.0	13.0	9.4	6.9	5.49	3.18	2.34	1.86	1.56	1.33	1.05	0.859	0.461
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恒功率放电表 (25°C/77°F) 单位: W															
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	38.4	27.5	23.3	20.0	15.1	11.2	9.03	5.39	4.04	3.28	2.78	2.42	1.91	1.582	0.873
1.80V/cell	45.4	31.4	25.9	22.0	16.4	12.1	9.66	5.76	4.27	3.46	2.91	2.53	2.01	1.655	0.890
1.75V/cell	50.4	34.0	27.8	23.1	17.0	12.5	10.00	5.90	4.35	3.50	2.95	2.55	2.03	1.676	0.905
1.70V/cell	54.0	36.2	28.8	23.8	17.5	12.8	10.19	6.01	4.43	3.55	2.98	2.58	2.04	1.686	0.908
1.67V/cell	57.8	37.7	29.6	24.4	17.9	13.0	10.41	6.07	4.49	3.58	3.01	2.59	2.05	1.697	0.910
1.60V/cell	59.5	38.2	30.1	24.6	18.1	13.2	10.51	6.16	4.52	3.62	3.04	2.62	2.06	1.707	0.912