

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



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

# TN12-3.2

(12V 3.2Ah)

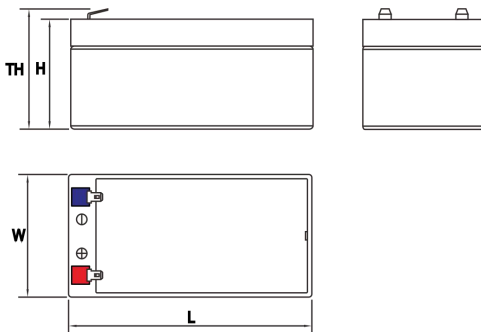
### GENERAL FEATURES

- ♦ 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	134±2mm / 5.28inch
Width	67±2mm / 2.64inch
Container Height	60.5±3mm / 2.38inch
Total Height	66.5±3mm / 2.62inch



### 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

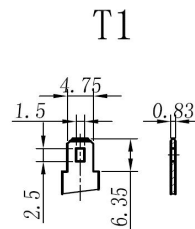
### Terminal

Unit:mm

Terminal Type: T1

### Weight

1.35kg 2.98lbs



This document is subject to change without prior notification

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## TN12-3.2

### Specificaion

<b>Nominal Voltage</b>	12V	
<b>Rated Capacity(25°C)</b>	3.2Ah	20hr Rate(1.80V/cell )
	2.98Ah	10hr Rate(1.80V/cell )
	2.73Ah	5hr Rate(1.75V/cell )
	2.46Ah	3hr Rate(1.70V/cell )
	1.97Ah	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>	0.96A ( 0.3C )	
<b>Max. Discharge Current (5S)</b>	48A	
<b>Internal Resistance</b>	45mΩ	
<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	6.1	4.3	3.5	3.1	2.5	1.9	1.57	0.96	0.73	0.60	0.51	0.44	0.35	0.287	0.158
1.80V/cell	7.6	5.1	4.1	3.5	2.7	2.1	1.68	1.02	0.77	0.63	0.53	0.46	0.36	0.298	0.160
1.75V/cell	9.0	5.8	4.5	3.8	2.9	2.2	1.78	1.07	0.79	0.65	0.55	0.47	0.37	0.303	0.162
1.70V/cell	10.2	6.4	4.9	4.1	3.1	2.3	1.85	1.11	0.82	0.67	0.56	0.48	0.38	0.308	0.164
1.67V/cell	11.2	6.9	5.2	4.3	3.2	2.4	1.93	1.14	0.84	0.68	0.57	0.49	0.38	0.313	0.167
1.60V/cell	11.8	7.1	5.4	4.4	3.3	2.4	1.97	1.18	0.86	0.70	0.58	0.50	0.39	0.318	0.168

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	11.6	8.2	6.8	5.9	4.8	3.7	3.04	1.87	1.43	1.18	1.00	0.87	0.70	0.580	0.320
1.80V/cell	14.1	9.6	7.8	6.7	5.3	4.0	3.26	1.98	1.49	1.23	1.04	0.91	0.72	0.597	0.322
1.75V/cell	16.5	10.8	8.5	7.2	5.6	4.2	3.41	2.05	1.54	1.26	1.06	0.92	0.73	0.605	0.322
1.70V/cell	18.5	11.8	9.2	7.7	5.8	4.4	3.53	2.12	1.58	1.29	1.08	0.94	0.74	0.611	0.326
1.67V/cell	20.1	12.5	9.6	8.0	6.0	4.5	3.66	2.17	1.61	1.31	1.10	0.95	0.75	0.617	0.329
1.60V/cell	20.8	12.9	9.9	8.1	6.1	4.6	3.71	2.22	1.64	1.33	1.12	0.97	0.76	0.624	0.330

☐ 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

# TN12-3.2

(12V 3.2Ah)

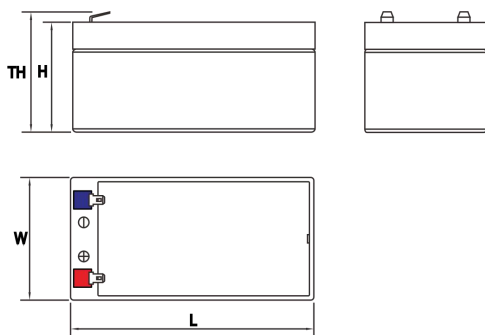
### 产品特点

- ◆ 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	134±2mm
宽	67±2mm
高	60.5±3mm
总高	66.5±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

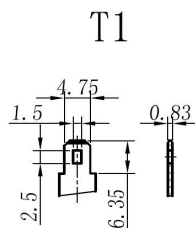
### 端子类型

单位:mm

端子类型 T1

### 重量

1.35kg 2.98lbs



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



## TN12-3.2

### 规格书

额定电压	12V	
容量(25°C)	3.2Ah	20hr Rate(1.80V/cell)
	2.98Ah	10hr Rate(1.80V/cell)
	2.73Ah	5hr Rate(1.75V/cell)
	2.46Ah	3hr Rate(1.70V/cell)
	1.97Ah	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	0.96A ( 0.3C )	
最大放电电流 ( 5S )	48A	
电阻	45mΩ	
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	6.1	4.3	3.5	3.1	2.5	1.9	1.57	0.96	0.73	0.60	0.51	0.44	0.35	0.287	0.158
1.80V/cell	7.6	5.1	4.1	3.5	2.7	2.1	1.68	1.02	0.77	0.63	0.53	0.46	0.36	0.298	0.160
1.75V/cell	9.0	5.8	4.5	3.8	2.9	2.2	1.78	1.07	0.79	0.65	0.55	0.47	0.37	0.303	0.162
1.70V/cell	10.2	6.4	4.9	4.1	3.1	2.3	1.85	1.11	0.82	0.67	0.56	0.48	0.38	0.308	0.164
1.67V/cell	11.2	6.9	5.2	4.3	3.2	2.4	1.93	1.14	0.84	0.68	0.57	0.49	0.38	0.313	0.167
1.60V/cell	11.8	7.1	5.4	4.4	3.3	2.4	1.97	1.18	0.86	0.70	0.58	0.50	0.39	0.318	0.168

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	11.6	8.2	6.8	5.9	4.8	3.7	3.04	1.87	1.43	1.18	1.00	0.87	0.70	0.580	0.320
1.80V/cell	14.1	9.6	7.8	6.7	5.3	4.0	3.26	1.98	1.49	1.23	1.04	0.91	0.72	0.597	0.322
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1.60V/cell	20.8	12.9	9.9	8.1	6.1	4.6	3.71	2.22	1.64	1.33	1.12	0.97	0.76	0.624	0.330