

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



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

# TN12-33

(12V 33Ah)

### 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

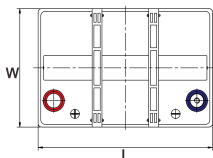
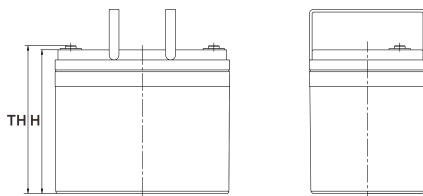
Unit:mm

Length 195±2mm / 7.68inch

Width 130±2mm / 5.12inch

Container Height 157.5±3mm / 6.2inch

Total Height 162±3mm / 6.38inch



### Application

- Uninterrupted Power Supply ( UPS )
- Communications and electric equipment
- Emergency lighting equipment
- Fire alarm and security system
- 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

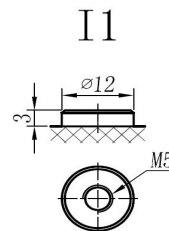
Unit:mm

Terminal Type: I1

### Weight

10kg

22.11lbs



This document is subject to change without prior notification

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# TN12-33

## Specificaion

<b>Nominal Voltage</b>	12V	
<b>Rated Capacity(25°C)</b>	33Ah	20hr Rate(1.80V/cell )
	31Ah	10hr Rate(1.80V/cell )
	28Ah	5hr Rate(1.75V/cell )
	26Ah	3hr Rate(1.70V/cell )
	21Ah	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>	10.5A ( 0.3C )	
<b>Max. Discharge Current (5S)</b>	495A	
<b>Internal Resistance</b>	12mΩ	
<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	62.9	48.3	40.0	34.6	26.7	20.0	16.85	9.96	7.80	6.33	5.17	4.46	3.60	2.983	1.632
1.80V/cell	84.5	61.8	48.3	40.9	31.5	23.2	18.88	10.86	8.38	6.77	5.54	4.79	3.82	3.073	1.652
1.75V/cell	95.2	67.9	52.9	44.0	32.7	24.2	19.69	11.27	8.55	6.91	5.69	4.92	3.88	3.153	1.672
1.70V/cell	104.8	74.0	56.4	46.2	34.1	25.1	20.40	11.57	8.78	7.11	5.84	5.02	3.94	3.213	1.702
1.67V/cell	115.6	79.8	60.0	49.1	35.9	25.7	20.81	11.77	9.16	7.35	6.00	5.13	4.00	3.283	1.722
1.60V/cell	127.5	86.6	64.2	52.4	38.0	26.8	21.01	12.18	9.43	7.57	6.20	5.24	4.04	3.323	1.732

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	115.0	89.2	74.7	65.3	51.0	37.8	32.03	19.12	15.02	12.21	10.01	8.70	7.04	5.896	3.243
1.80V/cell	152.8	112.7	89.0	76.0	59.3	43.7	35.74	20.72	16.02	13.01	10.71	9.29	7.45	6.066	3.263
1.75V/cell	168.6	121.8	96.0	81.0	61.0	44.9	37.14	21.32	16.22	13.21	10.91	9.51	7.56	6.226	3.293
1.70V/cell	180.5	129.7	101.1	84.4	63.2	46.5	38.24	21.82	16.72	13.51	11.21	9.70	7.66	6.346	3.353
1.67V/cell	196.2	138.7	106.7	89.0	66.1	47.2	38.84	22.02	17.32	13.91	11.41	9.88	7.76	6.466	3.393
1.60V/cell	211.4	147.2	112.2	93.8	69.3	49.0	39.04	22.92	17.72	14.31	11.81	10.01	7.82	6.527	3.403

☐ 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

# TN12-33

(12V 33Ah)

## 产品特点

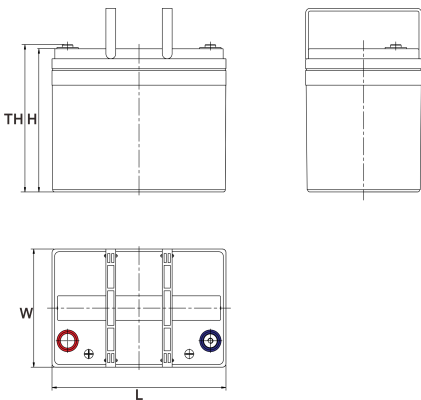
- ◆ 阀控式免维护设计，寿命期间无需加水或加酸
- ◆ 专利稀土合金板栅，减少气体产生，自放电率低，抗腐蚀能力出众
- ◆ 在25°C下，产品浮充设计寿命为3~5年，优良的深放电恢复能力
- ◆ 高质量AGM隔板：防止微短路，延长循环寿命
- ◆ ABS壳盖：电池外壳强度高（阻燃壳体UL94-V0可选）



## 尺寸

单个尺寸

长	195±2mm
宽	130±2mm
高	157.5±3mm
总高	162±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
- ◆ 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

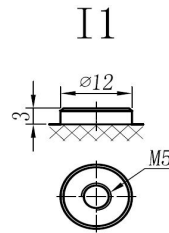
## 端子类型

单位:mm

端子类型 I1

## 重量

10kg 22.11lbs



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



## TN12-33

### 规格书

额定电压	12V	
容量(25°C)	33Ah	20hr Rate(1.80V/cell)
	31Ah	10hr Rate(1.80V/cell)
	28Ah	5hr Rate(1.75V/cell)
	26Ah	3hr Rate(1.70V/cell)
	21Ah	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	10.5A (0.3C)	
最大放电电流 (5S)	495A	
电阻	12mΩ	
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	62.9	48.3	40.0	34.6	26.7	20.0	16.85	9.96	7.80	6.33	5.17	4.46	3.60	2.983	1.632
1.80V/cell	84.5	61.8	48.3	40.9	31.5	23.2	18.88	10.86	8.38	6.77	5.54	4.79	3.82	3.073	1.652
1.75V/cell	95.2	67.9	52.9	44.0	32.7	24.2	19.69	11.27	8.55	6.91	5.69	4.92	3.88	3.153	1.672
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1.60V/cell	127.5	86.6	64.2	52.4	38.0	26.8	21.01	12.18	9.43	7.57	6.20	5.24	4.04	3.323	1.732

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	115.0	89.2	74.7	65.3	51.0	37.8	32.03	19.12	15.02	12.21	10.01	8.70	7.04	5.896	3.243
1.80V/cell	152.8	112.7	89.0	76.0	59.3	43.7	35.74	20.72	16.02	13.01	10.71	9.29	7.45	6.066	3.263
1.75V/cell	168.6	121.8	96.0	81.0	61.0	44.9	37.14	21.32	16.22	13.21	10.91	9.51	7.56	6.226	3.293
1.70V/cell	180.5	129.7	101.1	84.4	63.2	46.5	38.24	21.82	16.72	13.51	11.21	9.70	7.66	6.346	3.353
1.67V/cell	196.2	138.7	106.7	89.0	66.1	47.2	38.84	22.02	17.32	13.91	11.41	9.88	7.76	6.466	3.393
1.60V/cell	211.4	147.2	112.2	93.8	69.3	49.0	39.04	22.92	17.72	14.31	11.81	10.01	7.82	6.527	3.403