

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



## Maintenance Free VRLA AGM Battery - Long Life Type

# TNL12-50

(12V 50Ah)

### 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
- Long life, low self-discharge rate and high reliability, 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

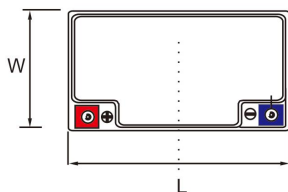
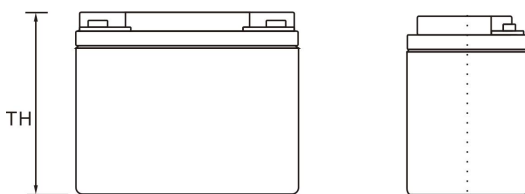
Unit:mm

Length 257±2mm / 10.12inch

Width 133±2mm / 5.24inch

Container Height 200±3mm / 7.87inch

Total Height 200±3mm / 7.87inch



### 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

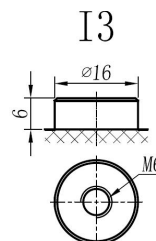
### Terminal

Unit:mm

Terminal Type: I3

### Weight

15.8kg 34.93lbs



This document is subject to change without prior notification

Motive Battery Energy Storage Battery Reserve Battery Motorcycle Battery

## TNL12-50

### Specificaion

<b>Nominal Voltage</b>	12V	
<b>Rated Capacity(25°C)</b>	53Ah	20hr Rate(1.80V/cell )
	50Ah	10hr Rate(1.80V/cell )
	44Ah	5hr Rate(1.75V/cell )
	42Ah	3hr Rate(1.70V/cell )
	31Ah	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>	15A ( 0.3C )	
<b>Max. Discharge Current (5'</b>	610A	
<b>Internal Resistance</b>	8mΩ	
<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	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	58.6	49.2	43.7	36.2	28.4	24.26	15.71	11.81	9.67	8.14	7.10	5.69	4.850	2.588
1.80V/cell	67.0	55.3	48.3	39.4	30.6	25.61	16.88	12.69	10.28	8.63	7.52	5.99	5.005	2.663
1.75V/cell	76.1	62.3	53.4	42.8	33.4	27.91	17.56	13.20	10.64	8.83	7.75	6.19	5.140	2.745
1.70V/cell	86.0	69.2	58.9	46.7	35.9	29.54	18.50	13.89	11.11	9.34	8.13	6.45	5.337	2.815
1.67V/cell	92.3	74.0	62.7	49.3	38.0	30.55	19.18	14.45	11.55	9.63	8.41	6.67	5.486	2.903
1.60V/cell	101.5	81.1	68.1	52.6	39.5	31.47	19.67	14.82	11.81	9.87	8.59	6.79	5.602	2.950

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

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	109.3	92.9	83.2	69.8	54.3	46.63	30.39	22.94	18.85	15.90	13.97	11.25	9.695	5.178
1.80V/cell	123.7	102.9	90.7	74.7	58.1	48.96	32.45	24.50	19.93	16.77	14.74	11.81	9.989	5.350
1.75V/cell	138.2	114.6	99.3	80.5	62.8	53.12	33.63	25.38	20.54	17.11	15.15	12.17	10.246	5.479
1.70V/cell	152.6	125.4	108.8	87.4	67.4	56.04	35.35	26.67	21.42	18.06	15.86	12.67	10.632	5.615
1.67V/cell	162.4	133.2	114.9	91.4	70.7	57.55	36.44	27.62	22.18	18.57	16.36	13.07	10.913	5.783
1.60V/cell	174.6	143.5	123.4	96.9	73.1	58.96	37.19	28.21	22.61	18.96	16.65	13.27	11.123	5.867

□ 动力电池

■ 储能电池

■ 备用电池

□ 摩托车电池



## 阀控式免维护AGM电池-长寿命系列

# TNL12-50

(12V 50Ah)

### 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
- ◆ 电池寿命长，自放电率低具有高可靠性，深放电恢复能力出色
- ◆ 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）



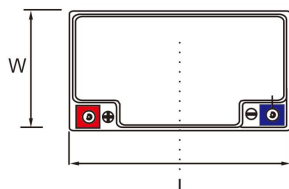
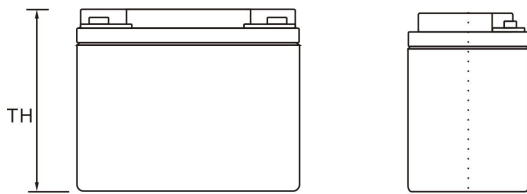
### 产品应用

- ◆ 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

### 尺寸

单个尺寸

长	257±2mm
宽	133±2mm
高	200±3mm
总高	200±3mm



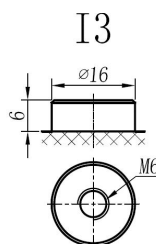
### 端子类型

单位:mm

端子类型 I3

### 重量

15.8kg 34.93lbs



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



## TNL12-50

### 规格书

额定电压	12V	
容量(25°C)	53Ah	20hr Rate(1.80V/cell)
	50Ah	10hr Rate(1.80V/cell)
	44Ah	5hr Rate(1.75V/cell)
	42Ah	3hr Rate(1.70V/cell)
	31Ah	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	15A (0.3C)	
最大放电电流 (5S)	610A	
电阻	8mΩ	
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	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	58.6	49.2	43.7	36.2	28.4	24.26	15.71	11.81	9.67	8.14	7.10	5.69	4.850	2.588
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恒功率放电表 (25°C/77°F) 单位: W														
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	109.3	92.9	83.2	69.8	54.3	46.63	30.39	22.94	18.85	15.90	13.97	11.25	9.695	5.178
1.80V/cell	123.7	102.9	90.7	74.7	58.1	48.96	32.45	24.50	19.93	16.77	14.74	11.81	9.989	5.350
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