

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



## Energy Storage Battery-AGM-GEL Technology-TNG Series

# TNG12-50

## (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
- ◆ Special paste formula: additives for deep discharge, long cycle life
- ◆ High quality AGM separator: extend cycle life and prevent micro short circuit
- ◆ The patent Nano silica electrolytes, extend cycle life and improve the deep discharge performance
- ◆ ABS container: increase the strength of battery (Flame-retardant ABS UL94-V0 is optional)



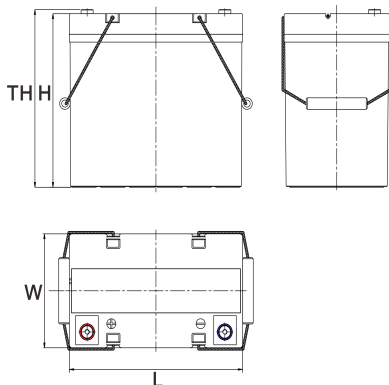
### Application

- ◆ 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 toy and hobby equipment
- ◆ Lighting equipment

### Dimension

Unit:mm

Length	228±2mm / 8.98inch
Width	138±2mm / 5.43inch
Container Height	213±3mm / 8.39inch
Total Height	213±3mm / 8.39inch



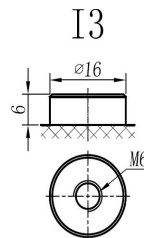
### Terminal

Unit:mm

Terminal Type: I3

### Weight

16.8kg 37.04lbs



ISO9001 ISO14001 OHSAS18001

This document is subject to change without prior notification

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## TNG12-50

### Specification

<b>Nominal Voltage</b>	12V	
<b>Rated Capacity(25°C)</b>	53Ah	20hr Rate(1.80V/cell)
	50Ah	10hr Rate(1.80V/cell)
	43Ah	5hr Rate(1.75V/cell)
	40Ah	3hr Rate(1.70V/cell)
	30Ah	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>	40°C / 104°F	106%
	25°C / 77°F	100%
	0°C / 32°F	86%
	-10°C / 14°F	65%
<b>Charge Voltage</b>	<b>Float Voltage</b>	2.25 -2.30V/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 (5S)</b>	600A	
<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	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	84.0	66.0	56.1	47.0	37.3	28.6	23.59	15.00	11.90	9.70	7.82	6.81	5.53	4.72	2.634
1.80V/cell	112.7	84.4	67.8	55.5	44.0	33.3	26.39	16.40	12.80	10.40	8.40	7.30	5.86	5.01	2.655
1.75V/cell	127.0	92.7	74.1	59.7	45.7	34.5	27.59	17.00	13.00	10.60	8.60	7.50	5.96	5.06	2.685
1.70V/cell	139.9	101.0	79.1	62.8	47.6	35.9	28.49	17.70	13.40	10.90	8.83	7.66	6.05	5.11	2.736
1.65V/cell	154.3	109.0	84.1	66.6	50.2	36.8	29.49	18.20	13.90	11.20	9.08	7.83	6.14	5.22	2.767
1.60V/cell	170.2	118.3	90.0	71.0	53.0	38.4	30.49	18.80	14.40	11.60	9.38	8.00	6.20	5.27	2.787

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	84.0	66.0	56.1	47.0	37.3	28.6	23.59	15.00	11.90	9.70	7.82	6.81	5.53	4.72	2.580
1.80V/cell	112.7	84.4	67.8	55.5	44.0	33.3	26.39	16.40	12.80	10.40	8.40	7.30	5.86	5.01	2.600
1.75V/cell	127.0	92.7	74.1	59.7	45.7	34.5	27.59	17.00	13.00	10.60	8.60	7.50	5.96	5.06	2.630
1.70V/cell	139.9	101.0	79.1	62.8	47.6	35.9	28.49	17.70	13.40	10.90	8.83	7.66	6.05	5.11	2.680
1.65V/cell	154.3	109.0	84.1	66.6	50.2	36.8	29.49	18.20	13.90	11.20	9.08	7.83	6.14	5.22	2.710
1.60V/cell	170.2	118.3	90.0	71.0	53.0	38.4	30.49	18.80	14.40	11.60	9.38	8.00	6.20	5.27	2.730

□ 动力电池

■ 储能电池

□ 备用电池

□ 摩托车电池



### 储能电池-AGM-凝胶技术-TNG系列

# TNG12-50

(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
- ◆ 特制组成配方，添加特殊试剂，增进深放电性能，延长循环寿命
- ◆ 高质量AGM隔板：防止微短路，延长循环寿命
- ◆ 纳米硅胶专利电解质，延长循环寿命，增进深放电性能
- ◆ ABS壳盖：电池外壳强度高（阻燃壳体UL94-V0可选）



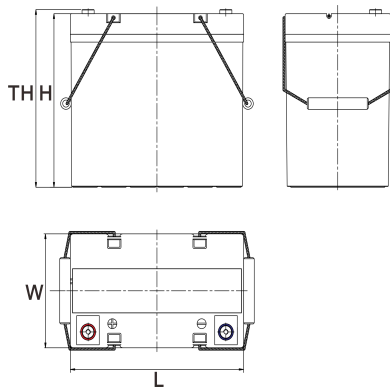
## 产品应用

- ◆ 可再生能源系统
- ◆ 太阳能混合动力系统
- ◆ 不间断电源 (UPS)
- ◆ 通信及电力设备
- ◆ 应急照明系统
- ◆ 安防及火灾报警系统
- ◆ 机械自动化控制设备
- ◆ 应急电源 (EPS)
- ◆ 各式电动玩具及娱乐设施
- ◆ 照明设备

## 尺寸

单个尺寸

长	228±2mm / 8.98inch
宽	138±2mm / 5.43inch
高	213±3mm / 8.39inch
总高	213±3mm / 8.39inch



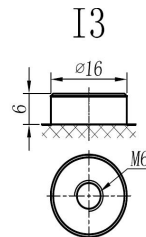
## 端子类型

单位:mm

端子类型 I3

## 重量

16.8kg 37.04lbs



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

## 规格书

## TNG12-50

额定电压	12V	
容量(25°C)	53Ah	20hr Rate(1.80V/cell)
	50Ah	10hr Rate(1.80V/cell)
	43Ah	5hr Rate(1.75V/cell)
	40Ah	3hr Rate(1.70V/cell)
	30Ah	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%
充电电压	浮充	2.25 -2.30V/单格@25°C, 温度补偿系数: -3mV/单格/°C
	均充	2.35 -2.40V/单格@25°C, 温度补偿系数: -3mV/单格/°C
	循环使用	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)	600A	
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	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	84.0	66.0	56.1	47.0	37.3	28.6	23.59	15.00	11.90	9.70	7.82	6.81	5.53	4.72	2.634
1.80V/cell	112.7	84.4	67.8	55.5	44.0	33.3	26.39	16.40	12.80	10.40	8.40	7.30	5.86	5.01	2.655
1.75V/cell	127.0	92.7	74.1	59.7	45.7	34.5	27.59	17.00	13.00	10.60	8.60	7.50	5.96	5.06	2.685
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1.65V/cell	154.3	109.0	84.1	66.6	50.2	36.8	29.49	18.20	13.90	11.20	9.08	7.83	6.14	5.22	2.767
1.60V/cell	170.2	118.3	90.0	71.0	53.0	38.4	30.49	18.80	14.40	11.60	9.38	8.00	6.20	5.27	2.787

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	84.0	66.0	56.1	47.0	37.3	28.6	23.59	15.00	11.90	9.70	7.82	6.81	5.53	4.72	2.580
1.80V/cell	112.7	84.4	67.8	55.5	44.0	33.3	26.39	16.40	12.80	10.40	8.40	7.30	5.86	5.01	2.600
1.75V/cell	127.0	92.7	74.1	59.7	45.7	34.5	27.59	17.00	13.00	10.60	8.60	7.50	5.96	5.06	2.630
1.70V/cell	139.9	101.0	79.1	62.8	47.6	35.9	28.49	17.70	13.40	10.90	8.83	7.66	6.05	5.11	2.680
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1.60V/cell	170.2	118.3	90.0	71.0	53.0	38.4	30.49	18.80	14.40	11.60	9.38	8.00	6.20	5.27	2.730