

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



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

# TNG12-90

## (12V 90Ah)

### 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)

### Dimension

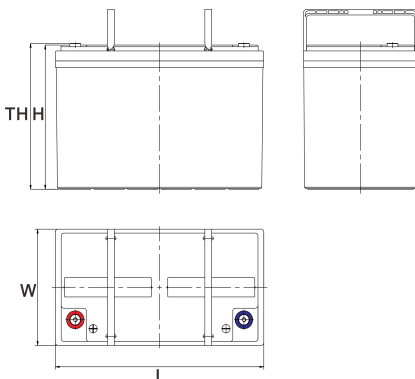
Unit:mm

Length 106.5±2mm / 12.05inch

Width 168±2mm / 6.61inch

Container Height 108.5±3mm / 8.21inch

Total Height 211±3mm / 8.31inch



### 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

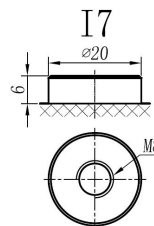
### Terminal

Unit:mm

Terminal Type: I3

### Weight

29.5kg 65.04lbs



This document is subject to change without prior notification

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## TNG12-90

### Specificaion

<b>Nominal Voltage</b>	12V	
<b>Rated Capacity(25°C)</b>	96Ah	20hr Rate(1.80V/cell)
	90Ah	10hr Rate(1.80V/cell)
	76Ah	5hr Rate(1.75V/cell)
	71Ah	3hr Rate(1.70V/cell)
	54Ah	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>	27A (0.3C)	
<b>Max. Discharge Current (5S)</b>	1080A	
<b>Internal Resistance</b>	5mΩ	
<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	151.1	118.8	101.0	84.5	67.2	50.8	41.83	26.65	21.07	17.21	13.87	12.14	9.86	8.50	4.732
1.80V/cell	202.8	151.8	122.1	99.9	79.2	59.1	46.86	29.08	22.67	18.38	14.90	13.02	10.45	9.01	4.778
1.75V/cell	228.7	166.8	133.3	107.5	82.3	61.4	49.03	30.16	23.09	18.79	15.26	13.38	10.63	9.10	4.824
1.70V/cell	251.8	181.8	142.3	112.9	85.6	63.8	50.57	31.36	23.74	19.28	15.67	13.65	10.78	9.19	4.916
1.65V/cell	277.7	196.2	151.4	120.0	90.3	65.4	52.28	32.24	24.74	19.95	16.11	13.96	10.95	9.38	4.981
1.60V/cell	306.3	213.0	161.9	127.8	95.4	68.2	54.13	33.32	25.50	20.57	16.64	14.26	11.06	9.48	5.008

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	276.3	219.4	188.5	159.3	128.0	97.7	80.69	51.75	41.07	33.64	27.19	23.86	19.46	16.83	9.182
1.80V/cell	366.9	277.1	224.7	185.5	148.7	112.7	89.91	56.09	43.94	35.74	29.07	25.50	20.58	17.80	9.257
1.75V/cell	404.9	299.6	242.4	197.7	153.1	115.9	93.63	57.97	44.58	36.41	29.73	26.11	20.88	17.96	9.335
1.70V/cell	433.5	319.1	255.2	206.2	158.5	120.1	96.27	60.14	45.74	37.30	30.43	26.61	21.16	18.12	9.507
1.65V/cell	471.2	341.3	269.3	217.4	165.8	122.0	98.80	61.47	47.47	38.44	31.16	27.12	21.43	18.47	9.619
1.60V/cell	507.7	362.0	283.3	229.1	173.9	126.4	101.77	63.22	48.71	39.51	32.08	27.62	21.60	18.63	9.658

☐ 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

# TNG12-90

## (12V 90Ah)

### 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）



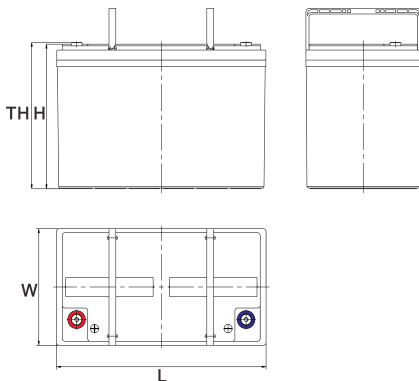
### 产品应用

- ◆ 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	106.5±2mm / 12.05inch
宽	168±2mm / 6.61inch
高	108.5±3mm / 8.21inch
总高	211±3mm / 8.31inch



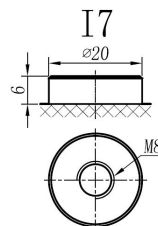
### 端子类型

单位:mm

端子类型 I3

### 重量

29.5kg 65.04lbs



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



## TNG12-90

### 规格书

额定电压	12V	
容量(25°C)	96Ah	20hr Rate(1.80V/cell)
	90Ah	10hr Rate(1.80V/cell)
	76Ah	5hr Rate(1.75V/cell)
	71Ah	3hr Rate(1.70V/cell)
	54Ah	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	27A (0.3C)	
最大放电电流(5S)	1080A	
电阻	5mΩ	
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	151.1	118.8	101.0	84.5	67.2	50.8	41.83	26.65	21.07	17.21	13.87	12.14	9.86	8.50	4.732
1.80V/cell	202.8	151.8	122.1	99.9	79.2	59.1	46.86	29.08	22.67	18.38	14.90	13.02	10.45	9.01	4.778
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1.60V/cell	306.3	213.0	161.9	127.8	95.4	68.2	54.13	33.32	25.50	20.57	16.64	14.26	11.06	9.48	5.008

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	276.3	219.4	188.5	159.3	128.0	97.7	80.69	51.75	41.07	33.64	27.19	23.86	19.46	16.83	9.182
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1.60V/cell	507.7	362.0	283.3	229.1	173.9	126.4	101.77	63.22	48.71	39.51	32.08	27.62	21.60	18.63	9.658