

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



Maintenance Free VRLA AGM Battery - Long Life Type

TNL12-90

(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
- 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

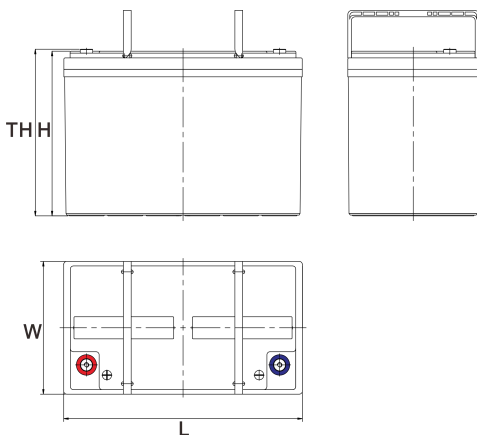
Unit:mm

Length 306.5±2mm / 12.07inch

Width 168±2mm / 6.61inch

Container Height 208.5±3mm / 8.21inch

Total Height 211±3mm / 8.31inch



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

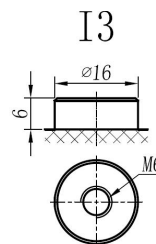
Terminal

Unit:mm

Terminal Type: I3

Weight

27.1kg 59.92lbs



This document is subject to change without prior notification

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TNL12-90

Specificaion

Nominal Voltage	12V	
Rated Capacity(25°C)	96Ah	20hr Rate(1.80V/cell)
	90Ah	10hr Rate(1.80V/cell)
	79Ah	5hr Rate(1.75V/cell)
	75Ah	3hr Rate(1.70V/cell)
	57Ah	1hr Rate(1.60V/cell)
Container Material	ABS (Flame-retardant ABS UL94-V0 is optional)	
Operating Temperature Range	Discharge	-20 ~ +50°C
	Charge	0 ~ +40°C
	Storage	-15 ~ +40°C
Capacity Effected by Temperature	40°C / 104°F	106%
	25°C / 77°F	100%
	0°C / 32°F	86%
	-10°C / 14°F	65%
Charge	Float Voltage	2.23 -2.27V/cell@25°C, Tem.Coefficient : -3mV/cell/°C
	Equalize Voltage	2.35 -2.40V/cell@25°C, Tem.Coefficient : -3mV/cell/°C
	Cycle Voltage	2.40 -2.50V/cell@25°C, Tem.Coefficient : -5mV/cell°C
Max. Charging Current	27A (0.3C)	
Max. Discharge Current (5'	1080A	
Internal Resistance	5mΩ	
Self-Discharge	<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	243.7	194.6	163.4	126.2	94.8	75.52	47.20	35.57	28.34	23.68	20.60	16.29	13.444	6.561
1.80V/cell	120.6	99.5	87.0	70.8	55.1	46.09	30.39	22.84	18.51	15.53	13.53	10.78	9.009	4.820
1.75V/cell	137.0	112.2	96.1	77.0	60.0	50.24	31.61	23.75	19.15	15.89	13.96	11.14	9.251	4.942
1.70V/cell	154.7	124.5	106.1	84.0	64.7	53.17	33.30	25.00	20.01	16.81	14.63	11.61	9.606	5.068
1.67V/cell	166.1	133.3	112.8	88.7	68.5	54.99	34.52	26.00	20.80	17.34	15.13	12.01	9.876	5.225
1.60V/cell	182.8	146.0	122.6	94.6	71.1	56.64	35.40	26.67	21.26	17.76	15.45	12.21	10.083	5.310

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	419.1	344.4	296.2	232.6	175.4	141.50	89.25	67.69	54.25	45.50	39.96	31.85	26.695	14.082
1.80V/cell	222.6	185.2	163.2	134.4	104.6	97.90	58.42	44.10	35.87	30.19	26.53	21.25	17.981	9.630
1.75V/cell	248.8	206.2	178.7	144.8	113.0	106.21	60.53	45.69	36.98	30.80	27.28	21.91	18.443	9.862
1.70V/cell	274.7	225.7	195.8	157.3	121.3	112.11	63.63	48.00	38.56	32.51	28.54	22.81	19.138	10.107
1.67V/cell	292.3	239.8	206.7	164.6	127.3	115.12	65.59	49.72	39.93	33.43	29.44	23.53	19.643	10.409
1.60V/cell	314.3	258.3	222.2	174.4	131.5	106.13	66.94	50.77	40.69	34.12	29.97	23.88	20.022	10.561

☐ 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

TNL12-90

(12V 90Ah)

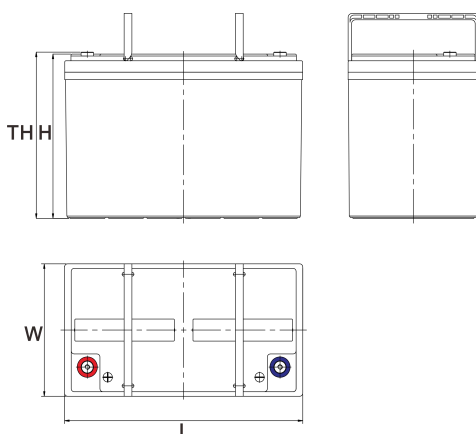
产品特点

- ◆ 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
- ◆ 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）

尺寸

单个尺寸

长	306.5±2mm
宽	168±2mm
高	208.5±3mm
总高	211±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

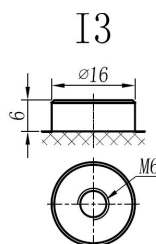
端子类型

单位:mm

端子类型 I3

重量

27.1kg 59.92lbs



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



TNL12-90

规格书

额定电压	12V	
容量(25°C)	96Ah	20hr Rate(1.80V/cell)
	90Ah	10hr Rate(1.80V/cell)
	79Ah	5hr Rate(1.75V/cell)
	75Ah	3hr Rate(1.70V/cell)
	57Ah	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	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	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	243.7	194.6	163.4	126.2	94.8	75.52	47.20	35.57	28.34	23.68	20.60	16.29	13.444	6.561
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1.60V/cell	182.8	146.0	122.6	94.6	71.1	56.64	35.40	26.67	21.26	17.76	15.45	12.21	10.083	5.310

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	419.1	344.4	296.2	232.6	175.4	141.50	89.25	67.69	54.25	45.50	39.96	31.85	26.695	14.082
1.80V/cell	222.6	185.2	163.2	134.4	104.6	97.90	58.42	44.10	35.87	30.19	26.53	21.25	17.981	9.630
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