

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



## Maintenance Free VRLA AGM Battery - Long Life Type

# TNL12-140

(12V 140Ah)

### 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

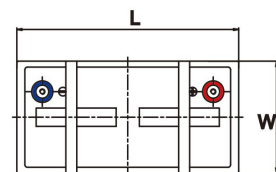
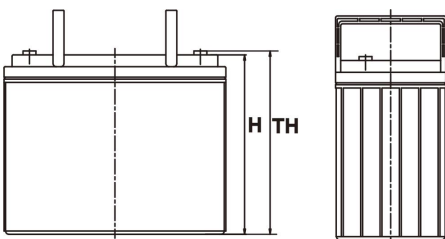
Unit:mm

Length 341±2mm / 13.43inch

Width 173±2mm / 6.81inch

Container Height 281±3mm / 11.06inch

Total Height 288±3mm / 11.34inch



### 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

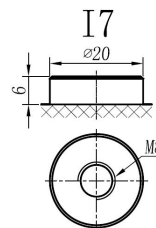
### Terminal

Unit:mm

Terminal Type: I7

### Weight

45.5kg 100.6lbs



This document is subject to change without prior notification

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## TNL12-140

### Specificaion

<b>Nominal Voltage</b>	12V	
<b>Rated Capacity(25°C)</b>	144Ah	20hr Rate(1.80V/cell )
	140Ah	10hr Rate(1.80V/cell )
	124Ah	5hr Rate(1.75V/cell )
	117Ah	3hr Rate(1.70V/cell )
	88Ah	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>	42A ( 0.3C )	
<b>Max. Discharge Current (5'</b>	1400A	
<b>Internal Resistance</b>	4mΩ	
<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	164.0	137.9	122.3	101.5	79.4	67.90	43.95	33.09	27.10	22.84	19.90	15.96	13.614	6.947
1.80V/cell	187.6	154.9	135.2	110.2	85.7	71.66	47.30	35.53	28.83	24.16	21.01	16.77	14.014	7.197
1.75V/cell	213.1	174.6	149.4	119.7	93.4	78.16	49.13	36.95	29.74	24.77	21.72	17.37	14.414	7.588
1.70V/cell	240.6	193.6	165.0	130.7	100.6	82.72	51.77	38.87	31.16	26.19	22.73	18.08	14.915	7.888
1.67V/cell	258.5	207.3	175.6	137.9	106.5	85.56	53.69	40.50	32.38	27.00	23.53	18.69	15.315	8.128
1.60V/cell	284.3	227.0	190.7	147.2	110.6	88.10	55.11	41.51	33.09	27.61	24.04	18.99	15.716	8.258

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	306.1	260.1	233.0	195.4	152.1	130.53	85.09	64.26	52.75	44.54	39.14	31.53	27.127	14.515
1.80V/cell	346.2	288.2	254.0	209.0	162.8	137.04	90.89	68.57	55.76	46.95	41.24	33.03	27.928	15.015
1.75V/cell	387.0	320.8	278.0	225.3	175.9	148.75	94.19	71.07	57.56	47.95	42.44	34.13	28.729	15.315
1.70V/cell	427.3	351.1	304.5	244.6	188.7	156.86	99.00	74.67	59.96	50.55	44.44	35.54	29.730	15.716
1.67V/cell	454.8	373.0	321.6	256.1	197.9	161.16	102.00	77.38	62.16	51.95	45.85	36.64	30.531	16.216
1.60V/cell	489.0	401.9	345.5	271.4	204.6	165.06	104.10	78.98	63.26	53.05	46.65	37.14	31.131	16.416

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

# TNL12-140

(12V 140Ah)

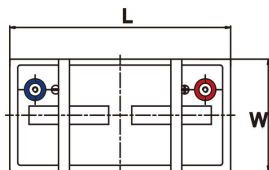
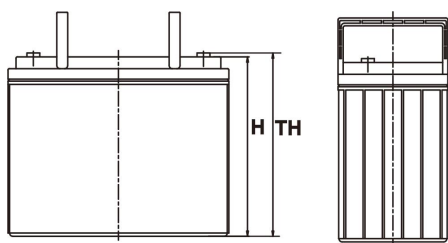
### 产品特点

- ◆ 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	341±2mm
宽	173±2mm
高	281±3mm
总高	288±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

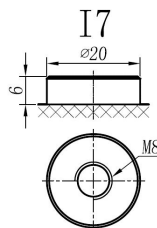
### 端子类型

单位:mm

端子类型 I7

### 重量

45.5kg 100.6lbs



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



# TNL12-140

## 规格书

额定电压	12V	
容量(25°C)	144Ah	20hr Rate(1.80V/cell)
	140Ah	10hr Rate(1.80V/cell)
	124Ah	5hr Rate(1.75V/cell)
	117Ah	3hr Rate(1.70V/cell)
	88Ah	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	42A (0.3C)	
最大放电电流 (5S)	1400A	
电阻	4mΩ	
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	164.0	137.9	122.3	101.5	79.4	67.90	43.95	33.09	27.10	22.84	19.90	15.96	13.614	6.947
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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	306.1	260.1	233.0	195.4	152.1	130.53	85.09	64.26	52.75	44.54	39.14	31.53	27.127	14.515
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