

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



Maintenance Free VRLA AGM Battery - Long Life Type

TNL12-28A

(12V 28Ah)

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

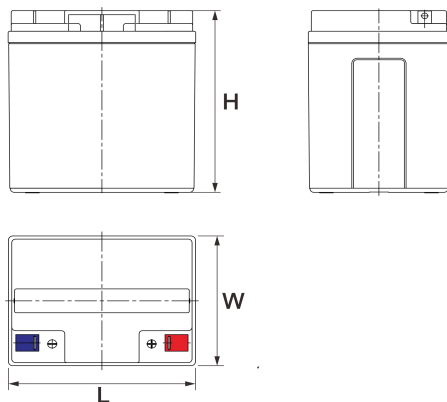
Unit:mm

Length 166±2mm / 6.54inch

Width 126.5±2mm / 4.98inch

Container Height 172.5±3mm / 6.79inch

Total Height 172.5±3mm / 6.79inch



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

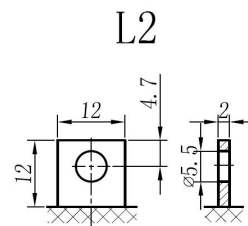
Unit:mm

Terminal Type: L2

Weight

9.1kg

20.12lbs



ISO9001 ISO14001 OHSAS18001

This document is subject to change without prior notification

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TNL12-28A

Specificaion

Nominal Voltage	12V	
Rated Capacity(25°C)	30Ah	20hr Rate(1.80V/cell)
	28Ah	10hr Rate(1.80V/cell)
	25Ah	5hr Rate(1.75V/cell)
	23Ah	3hr Rate(1.70V/cell)
	17Ah	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	8.4A (0.3C)	
Max. Discharge Current (5!)	420A	
Internal Resistance	12mΩ	
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	36.2	30.2	25.7	21.0	16.1	13.51	8.62	6.83	5.53	4.47	3.91	3.12	2.646	1.471
1.80V/cell	46.2	36.4	30.4	24.8	18.7	15.13	9.41	7.35	5.91	4.80	4.19	3.32	2.803	1.485
1.75V/cell	50.8	39.8	32.7	25.7	19.4	15.83	9.76	7.48	6.05	4.93	4.30	3.37	2.831	1.499
1.70V/cell	55.3	42.5	34.4	26.8	20.2	16.33	10.14	7.69	6.20	5.05	4.39	3.42	2.859	1.528
1.67V/cell	59.7	45.2	36.5	28.3	20.7	16.88	10.43	8.02	6.41	5.20	4.49	3.48	2.918	1.547
1.60V/cell	64.8	48.3	38.9	29.8	21.6	17.48	10.78	8.26	6.62	5.37	4.59	3.51	2.949	1.562

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	68.0	57.3	49.4	40.8	31.1	26.16	16.81	13.36	10.86	8.80	7.75	6.22	5.329	2.966
1.80V/cell	85.9	68.4	57.5	47.4	35.9	29.15	18.22	14.30	11.54	9.41	8.28	6.59	5.636	2.990
1.75V/cell	92.9	73.8	61.3	48.8	36.9	30.36	18.83	14.51	11.78	9.63	8.48	6.68	5.686	3.015
1.70V/cell	99.1	77.7	63.9	50.5	38.2	31.22	19.53	14.89	12.04	9.85	8.64	6.77	5.738	3.069
1.67V/cell	105.9	82.0	67.4	52.9	38.8	32.04	19.97	15.45	12.41	10.09	8.80	6.86	5.847	3.105
1.60V/cell	112.4	86.3	71.1	55.4	40.3	33.01	20.54	15.85	12.76	10.39	8.96	6.91	5.899	3.117

☐ 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

TNL12-28A

(12V 28Ah)

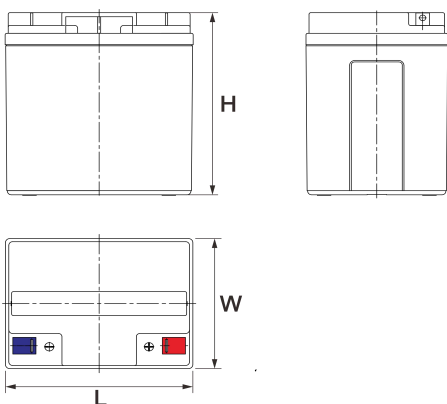
产品特点

- ◆ 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	166±2mm
宽	126.5±2mm
高	172.5±3mm
总高	172.5±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

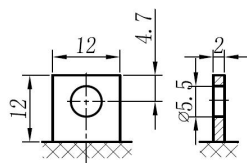
单位:mm

端子类型 L2

重量

9.1kg 20.12lbs

L2



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



TNL12-28A

规格书

额定电压	12V	
容量(25°C)	30Ah	20hr Rate(1.80V/cell)
	28Ah	10hr Rate(1.80V/cell)
	25Ah	5hr Rate(1.75V/cell)
	23Ah	3hr Rate(1.70V/cell)
	17Ah	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	8.4A (0.3C)	
最大放电电流 (5S)	420A	
电阻	12mΩ	
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	36.2	30.2	25.7	21.0	16.1	13.51	8.62	6.83	5.53	4.47	3.91	3.12	2.646	1.471
1.80V/cell	46.2	36.4	30.4	24.8	18.7	15.13	9.41	7.35	5.91	4.80	4.19	3.32	2.803	1.485
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1.70V/cell	55.3	42.5	34.4	26.8	20.2	16.33	10.14	7.69	6.20	5.05	4.39	3.42	2.859	1.528
1.67V/cell	59.7	45.2	36.5	28.3	20.7	16.88	10.43	8.02	6.41	5.20	4.49	3.48	2.918	1.547
1.60V/cell	64.8	48.3	38.9	29.8	21.6	17.48	10.78	8.26	6.62	5.37	4.59	3.51	2.949	1.562

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	68.0	57.3	49.4	40.8	31.1	26.16	16.81	13.36	10.86	8.80	7.75	6.22	5.329	2.966
1.80V/cell	85.9	68.4	57.5	47.4	35.9	29.15	18.22	14.30	11.54	9.41	8.28	6.59	5.636	2.990
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1.67V/cell	105.9	82.0	67.4	52.9	38.8	32.04	19.97	15.45	12.41	10.09	8.80	6.86	5.847	3.105
1.60V/cell	112.4	86.3	71.1	55.4	40.3	33.01	20.54	15.85	12.76	10.39	8.96	6.91	5.899	3.117