

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



Industry Reserve Battery- TNF Series (Front Terminal)

TNF12-200

(12V 200Ah)

GENERAL FEATURES

- ♦ Oxygen recombination technology: Maintenance Free VRLA battery, no need to add water or acid during application
- ♦ The patent grid alloy: less gassing, low self-discharge
- ♦ Design life is 12 years at 25°C under standby application
- ♦ 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)



Application

- ♦ For standard 19", 21" and 23" cabinet or rack
- ♦ Network connection equipment of communication system
- ♦ Power system of special network or localarea network
- ♦ UPS, standby power supply
- ♦ Power station system
- ♦ Railway and marine systems

Dimension

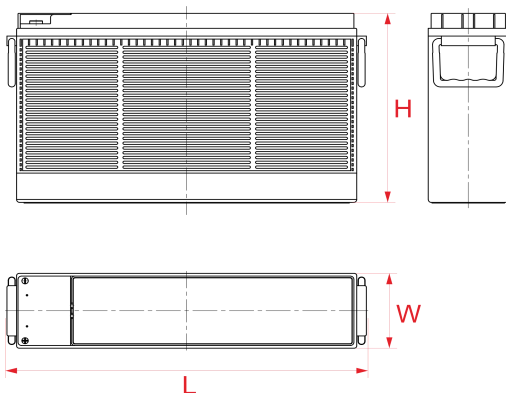
Unit:mm

Length 561±2mm / 22.09inch

Width 125±2mm / 4.92inch

Container Height 317±3mm / 12.48inch

Total Height 317±3mm / 12.48inch



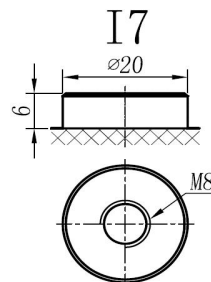
Terminal

Unit:mm

Terminal Type: I7

Weight

61.9kg 136.46lbs



ISO9001 ISO14001 OHSAS18001

This document is subject to change without prior notification

Motive Battery

Energy Storage Battery

Reserve Battery

Motorcycle Battery



TNF12-200

Specificaion

Nominal Voltage	12V	
Rated Capacity(25°C)	213Ah	20hr Rate(1.80V/cell)
	200Ah	10hr Rate(1.80V/cell)
	175Ah	5hr Rate(1.75V/cell)
	160Ah	3hr Rate(1.70V/cell)
	133Ah	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	60A (0.3C)	
Max. Discharge Current (5'	1600A	
Internal Resistance	3.3mΩ	
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	290.4	255.4	229.0	187.6	144.6	116.86	68.18	49.89	40.00	33.53	28.99	23.03	19.190	10.201
1.80V/cell	337.3	294.8	255.4	201.6	152.9	122.31	70.60	51.71	41.21	34.54	29.80	23.84	20.000	10.626
1.75V/cell	372.3	317.3	272.3	209.7	157.7	125.95	72.22	52.52	41.71	34.95	30.20	24.24	20.301	10.706
1.70V/cell	396.4	332.6	283.2	216.8	160.7	127.97	73.23	53.23	42.32	35.25	30.60	24.54	20.503	10.807
1.67V/cell	414.5	343.8	289.2	221.3	164.1	130.49	74.24	53.63	42.72	35.75	30.91	24.75	20.705	10.908
1.60V/cell	432.6	353.4	297.6	225.7	166.5	132.51	75.14	54.34	43.13	36.06	31.21	25.05	20.907	10.908

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	542.2	481.8	436.1	361.3	280.8	227.76	133.72	98.17	78.98	66.46	57.67	45.96	38.380	20.402
1.80V/cell	622.7	548.6	479.5	382.5	294.6	237.05	137.56	101.20	81.00	67.97	58.88	47.47	39.700	21.252
1.75V/cell	676.2	583.3	506.3	394.4	301.1	243.01	140.19	102.41	81.71	68.68	59.59	48.08	40.501	21.412
1.70V/cell	703.9	603.0	522.6	405.8	305.5	246.04	141.80	103.63	82.72	69.08	60.30	48.58	40.905	21.513
1.67V/cell	733.1	620.7	531.6	413.2	311.2	250.48	143.62	104.23	83.43	69.99	60.70	48.99	41.208	21.614
1.60V/cell	744.0	625.5	539.3	416.0	312.3	251.79	144.03	104.84	83.73	70.30	61.00	49.39	41.511	21.715

动力电池

储能电池

备用电池

摩托车电池



工业备用电池-TNF系列（前置端子）

TNF12-200

(12V 200Ah)

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
- ◆ 25°C温度下，在备用系统中使用寿命可长达12年
- ◆ 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）



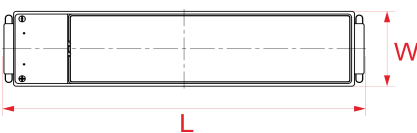
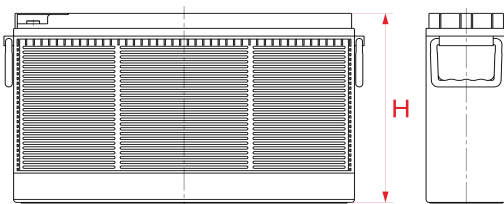
产品应用

- ◆ 适用于标准19"，21" 和23"的机柜或机架
- ◆ 网络通讯系统
- ◆ 电力系统专用网或局域网
- ◆ 不间断电源系统，备用系统
- ◆ 电力站系统
- ◆ 铁路及航运系统

尺寸

单个尺寸

长	561±2mm
宽	125±2mm
高	317±3mm
总高	317±3mm



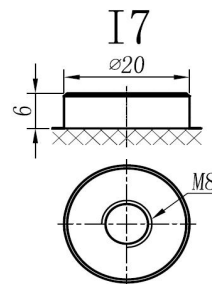
端子类型

单位:mm

端子类型 I7

重量

61.9kg 136.46lbs



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



TNF12-200

规格书

额定电压	12V	
容量(25°C)	213Ah	20hr Rate(1.80V/cell)
	200Ah	10hr Rate(1.80V/cell)
	175Ah	5hr Rate(1.75V/cell)
	160Ah	3hr Rate(1.70V/cell)
	133Ah	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	60A (0.3C)	
最大放电电流 (5S)	1600A	
电阻	3.3mΩ	
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	290.4	255.4	229.0	187.6	144.6	116.86	68.18	49.89	40.00	33.53	28.99	23.03	19.190	10.201
1.80V/cell	337.3	294.8	255.4	201.6	152.9	122.31	70.60	51.71	41.21	34.54	29.80	23.84	20.000	10.626
1.75V/cell	372.3	317.3	272.3	209.7	157.7	125.95	72.22	52.52	41.71	34.95	30.20	24.24	20.301	10.706
1.70V/cell	396.4	332.6	283.2	216.8	160.7	127.97	73.23	53.23	42.32	35.25	30.60	24.54	20.503	10.807
1.67V/cell	414.5	343.8	289.2	221.3	164.1	130.49	74.24	53.63	42.72	35.75	30.91	24.75	20.705	10.908
1.60V/cell	432.6	353.4	297.6	225.7	166.5	132.51	75.14	54.34	43.13	36.06	31.21	25.05	20.907	10.908

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	542.2	481.8	436.1	361.3	280.8	227.76	133.72	98.17	78.98	66.46	57.67	45.96	38.380	20.402
1.80V/cell	622.7	548.6	479.5	382.5	294.6	237.05	137.56	101.20	81.00	67.97	58.88	47.47	39.700	21.252
1.75V/cell	676.2	583.3	506.3	394.4	301.1	243.01	140.19	102.41	81.71	68.68	59.59	48.08	40.501	21.412
1.70V/cell	703.9	603.0	522.6	405.8	305.5	246.04	141.80	103.63	82.72	69.08	60.30	48.58	40.905	21.513
1.67V/cell	733.1	620.7	531.6	413.2	311.2	250.48	143.62	104.23	83.43	69.99	60.70	48.99	41.208	21.614
1.60V/cell	744.0	625.5	539.3	416.0	312.3	251.79	144.03	104.84	83.73	70.30	61.00	49.39	41.511	21.715