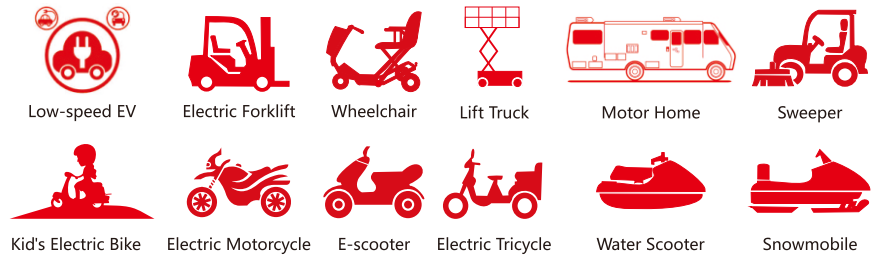




Product Features

Deep Cycle Series		400~600 Cycle Times @100%DOD	
↑10% Energy Density Patent negative pasting formula	↓50% Grid Corrosion Rare-earth patent alloy	0% Acid stratification Nano silica gel technology	

Product Applications



Physical Specification

Model	Dimensions (mm/inch)				Weight (kg/lbs)	Terminal	Container
TNE12-38	Length	Width	Height	Total Height	9.00/19.8	110	ABS UL94-HB (Optional: FR ABS UL94-V0)
	262/10.3	77/3.03	171/6.73	176/6.93			

Product Specifications

Nominal Voltage	Rated Capacity 25°C/77°C	Operating Temp. Range	Capacity Effected Temp	Capacity vs Storage Time
12V	38Ah 20hr Rate (1.80V/cell) 35Ah 10hr Rate (1.75V/cell) 34Ah 5hr Rate (1.75V/cell) 32Ah 3hr Rate (1.75V/cell)	Discharge:-15°C~50°C (5°F~122°F) Charge:0°C~40°C (32°F~104°F) Storage:-15°C~40°C (5°F~104°F) Optimum:25°C±2°C (77°F±5°F)	40°C (104°F):106% 25°C (77°F):100% 0°C (32°F):85% -15°C (5°F):72%	Three months : 90% Six months : 80% Nine months : 60%

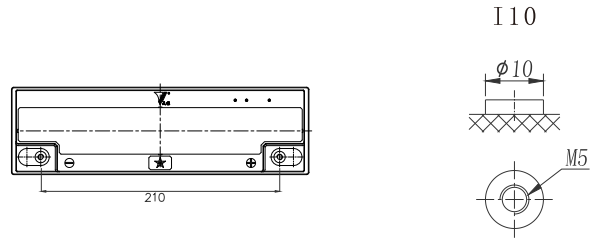
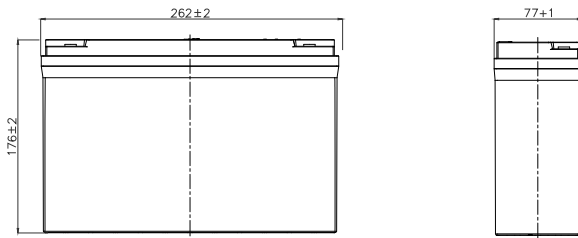
Constant Current Discharge (A)@25°C (77°F)

F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	38.7	27.6	22.1	12.6	9.61	7.36	5.99	5.07	3.89	3.17	1.75
1.80V/cell	40.1	28.4	22.8	13.1	10.0	7.58	6.22	5.26	4.01	3.26	1.90
1.75V/cell	41.2	29.5	23.6	13.9	10.7	8.12	6.57	5.52	4.21	3.40	1.84
1.70V/cell	42.2	30.2	24.4	14.1	10.7	8.23	6.71	5.67	4.29	3.47	1.88
1.67V/cell	43.0	31.2	25.3	14.3	10.8	8.31	6.85	5.74	4.37	3.52	1.90
1.60V/cell	44.2	32.1	25.8	14.7	10.9	8.56	7.00	5.90	4.48	3.63	1.91

Constant Power Discharge (W/cell)@25°C (77°F)

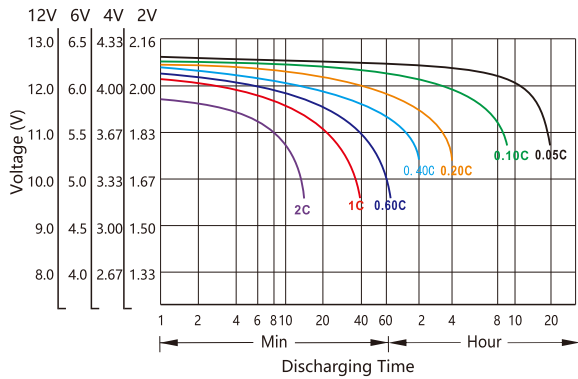
F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	75.6	54.2	43.7	25.2	19.3	14.8	12.1	10.2	7.88	6.43	3.55
1.80V/cell	78.0	55.7	44.9	26.0	19.9	15.2	12.5	10.6	8.09	6.59	3.85
1.75V/cell	79.8	57.6	46.4	27.5	21.2	16.2	13.2	11.1	8.46	6.85	3.72
1.70V/cell	81.3	58.7	47.7	27.8	21.1	16.3	13.4	11.3	8.58	6.95	3.78
1.67V/cell	82.3	60.1	49.1	27.9	21.3	16.4	13.5	11.4	8.67	7.01	3.79
1.60V/cell	83.8	61.4	49.6	28.6	21.2	16.8	13.7	11.6	8.82	7.16	3.81

Battery Dimensions(mm)

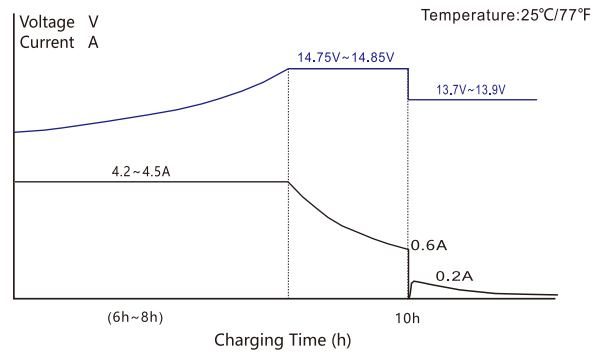


Electrical Characteristics

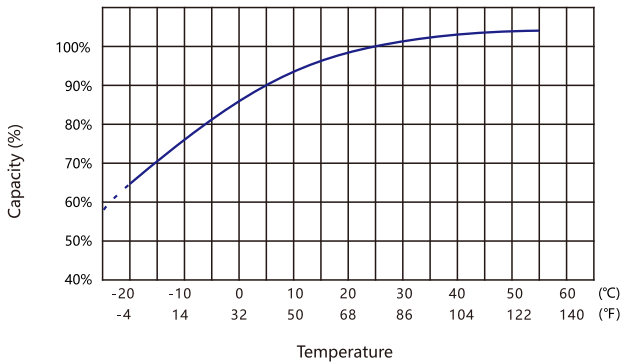
Discharging Characteristics@25°C(77°F)



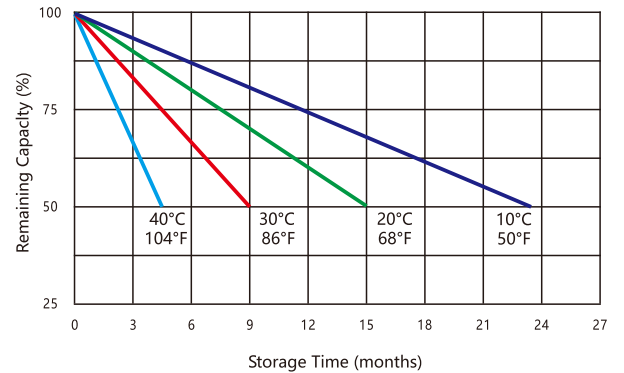
Charging Characteristics@25°C(77°F)



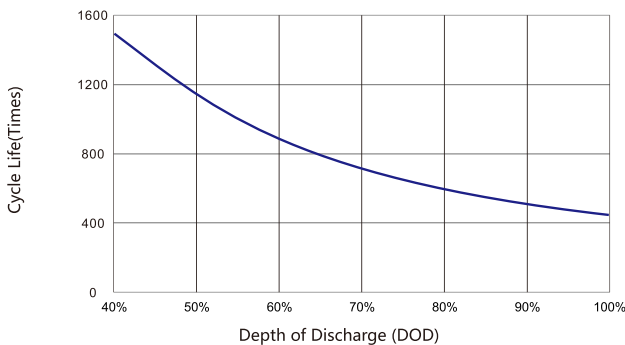
Capacity vs Temperature



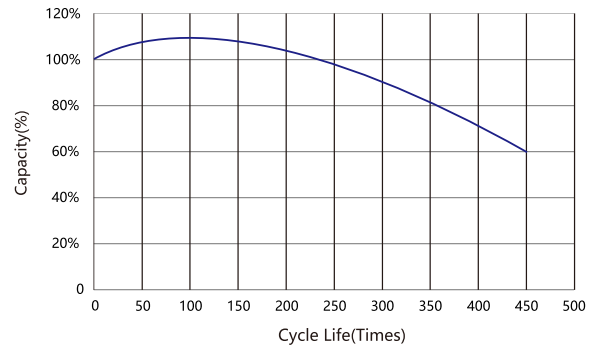
Self-discharge vs Time



Cycle Life vs Depth of Discharge@25°C(77°F)



Cycle Life vs Remaining Capacity@25°C(77°F)



Usage and Maintenance

Limited Current	Limited Voltage	Limited Voltage
Limited current: $\leq 0.15C_A$	14.6V~14.8V @25°C(77°F) Temp.Coefficient:-24mV/°C	13.6V~13.8V @25°C(77°F) Temp.Coefficient:-18mV/°C