

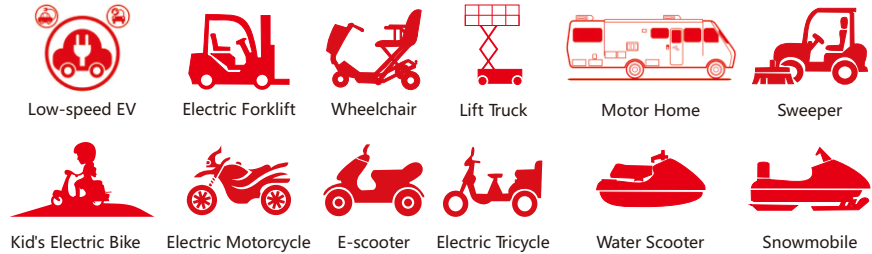
TNE 12-90 [12V90Ah]



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
TNE12-90	Length	Width	Height	Total Height	23.5/51.8	I3	ABS UL94-HB (Optional: FR ABS UL94-V0)
	260/10.2	168/6.61	210/8.27	210/8.27			

Product Specifications

Nominal Voltage	Rated Capacity ^{25°C/77°C}	Operating Temp. Range	Capacity Effected Temp	Capacity vs Storage Time
12V	90Ah 20hr Rate (1.80V/cell) 81Ah 10hr Rate (1.75V/cell) 76Ah 5hr Rate (1.75V/cell) 71Ah 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	96.5	68.8	55.1	31.5	22.0	17.43	14.26	12.15	9.38	7.70	4.35
1.80V/cell	99.9	70.8	56.8	32.6	22.8	17.93	14.82	12.60	9.65	7.89	4.50
1.75V/cell	102.6	73.4	58.9	34.7	23.7	18.58	15.15	12.86	9.93	8.05	4.59
1.70V/cell	105.1	75.4	60.9	35.2	24.2	19.24	15.79	13.50	10.16	8.25	4.69
1.67V/cell	107.3	77.8	63.1	35.6	24.5	19.41	16.15	13.57	10.39	8.40	4.73
1.60V/cell	110.2	80.0	64.4	36.8	25.4	19.99	16.51	13.98	10.65	8.68	4.77

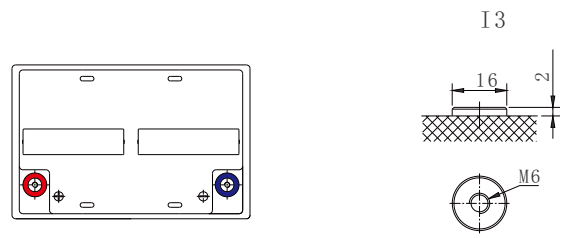
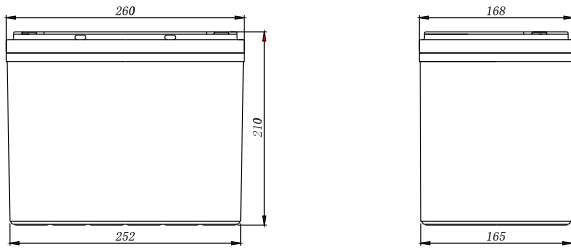
Constant Power Discharge (W/cell)@25°C (77°F)

F.V/Time	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	188.4	135.2	108.9	62.8	44.1	35.1	28.8	24.5	19.01	15.61	8.86
1.80V/cell	194.4	138.7	111.9	64.7	45.6	36.0	29.7	25.4	19.47	15.95	9.12
1.75V/cell	198.8	143.6	115.7	68.6	47.1	37.1	30.3	25.8	19.95	16.20	9.27
1.70V/cell	202.7	146.3	119.0	69.3	47.9	38.2	31.4	26.9	20.32	16.53	9.43
1.67V/cell	205.2	149.8	122.5	69.6	48.2	38.3	31.9	26.9	20.61	16.71	9.45
1.60V/cell	208.9	153.1	123.7	71.3	49.4	39.1	32.4	27.5	20.98	17.14	9.51

TNE 12-90 [12V90Ah]

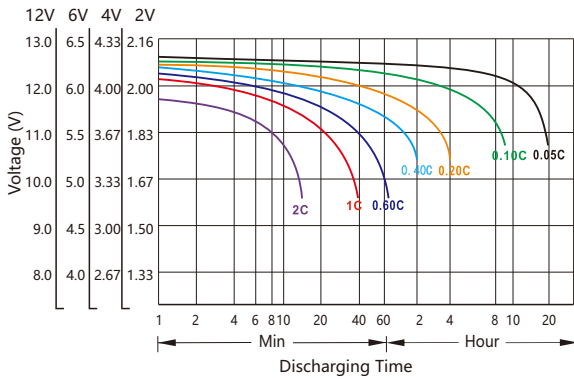


Battery Dimensions(mm)

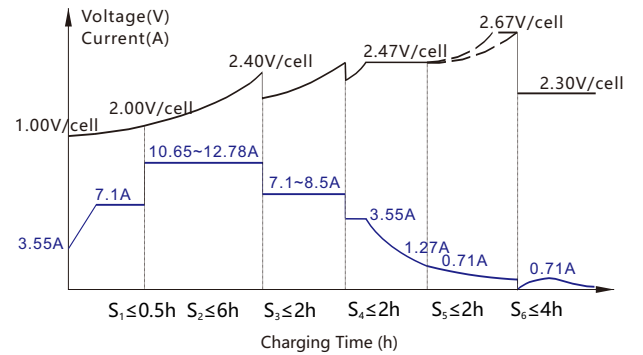


Electrical Characteristics

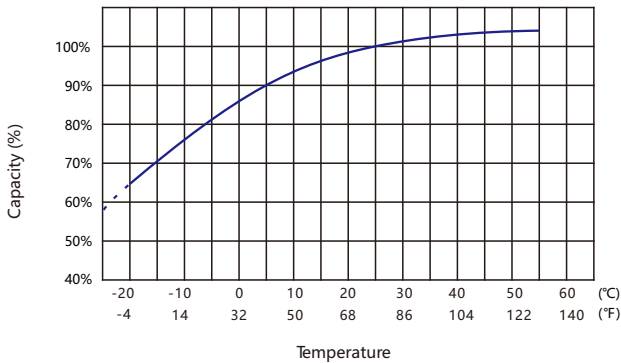
Discharging Characteristics@25°C(77°F)



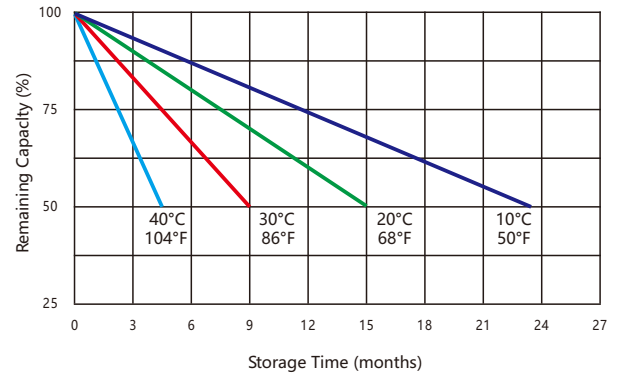
Charging Characteristics@25°C(77°F)



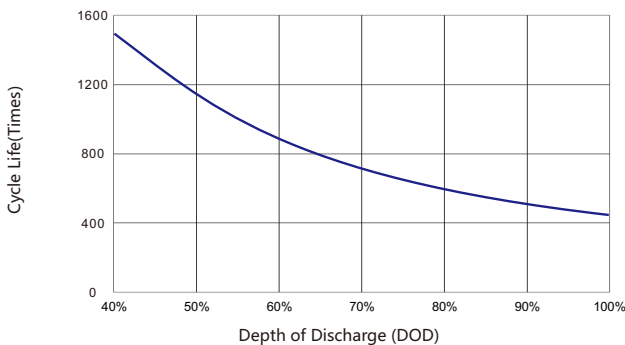
Capacity vs Temperature



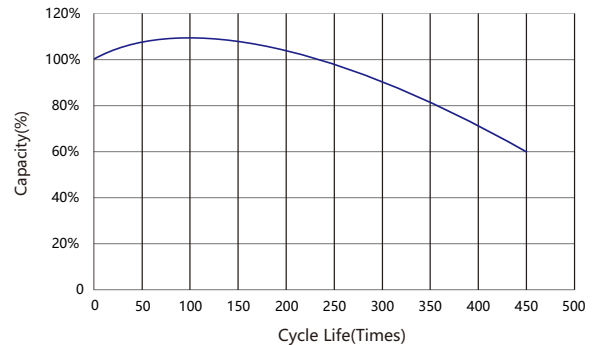
Self-discharge vs Time



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 current: $\leq 0.2C_5A$

Limited Voltage

14.4V~14.8V@25°C(77°F)
Temp.Coefficient:-24mV/°C

Floating Voltage

13.5V~13.8V@25°C(77°F)
Temp.Coefficient:-18mV/°C