

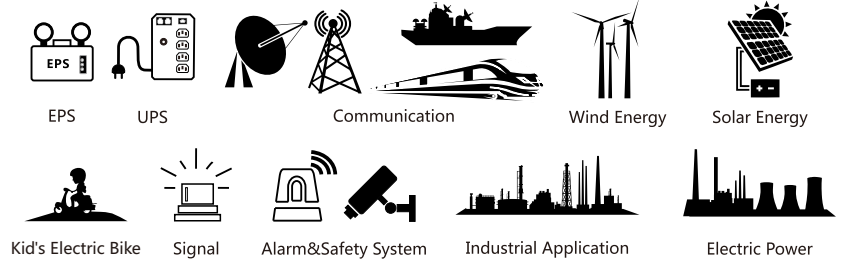
# TN12-18 [12V 18Ah]



## Product Features

General Purpose (AGM)		3~5 years of design life@25°C	
100% Model Coverage Both Cycle & Float Application	↑98% Capacity Retention High Purity Electrolyte	↑20% Charge Acceptance Special Negative Additive	↓50% Grid Corrosion Rare-earth patent alloy

## Product Applications



## Physical Specifications

Model	Dimensions ±5%(mm/inch)				Weight (kg/lbs)	Terminal	Container
TN12-18	Length	Width	Height	Total Height	5.5/11.58	I10	ABS UL94-HB (Optional: FR ABS UL94-V0)
	181/7.11	77/3.03	167/6.57	167/6.57			

## Product Specifications

Nominal Voltage	Rated Capacity <sup>25°C/77°F</sup>	Internal Resistance	Max. Discharge Current	Operating Temp. Range
12V	18.0Ah 20hr Rate (1.80V/cell) 17.1Ah 10hr Rate (1.80V/cell) 15.0Ah 5hr Rate (1.75V/cell) 13.1Ah 3hr Rate (1.70V/cell)	14mΩ@25°C/77°F	270A (5s)	Discharge:-15~50°C (5~122°F) Charge:0~40°C (32~104°F) Storage:-15~40°C (5~104°F) Optimum:25±2°C (77±4°F)

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

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	58.3	37.8	31.5	25.9	18.1	12.5	9.76	5.51	4.03	3.31	2.85	2.48	2.01	1.67	0.888
1.80V/cell	62.9	39.9	32.7	26.5	18.5	12.8	10.0	5.63	4.13	3.40	2.92	2.56	2.06	1.71	0.900
1.75V/cell	65.1	41.0	33.5	27.1	19.0	13.2	10.2	5.76	4.26	3.48	2.99	2.61	2.12	1.74	0.923
1.70V/cell	67.5	42.0	34.2	27.8	19.4	13.6	10.6	5.93	4.36	3.58	3.07	2.69	2.18	1.78	0.941
1.67V/cell	69.3	43.3	35.0	28.5	19.8	13.9	10.8	6.09	4.47	3.65	3.14	2.74	2.21	1.81	0.957
1.60V/cell	71.5	45.1	36.3	29.4	20.4	14.2	11.0	6.32	4.61	3.76	3.21	2.81	2.26	1.85	0.974

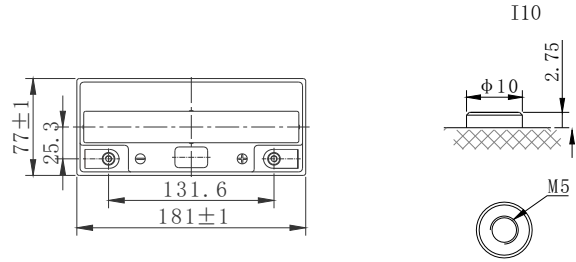
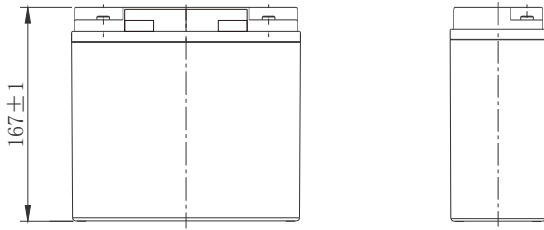
## Constant Power Discharge (W/cell)@25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	108	71.5	60.4	50.2	35.5	24.9	19.4	11.1	8.15	6.73	5.81	5.08	4.12	3.42	1.83
1.80V/cell	117	75.4	62.5	51.2	36.4	25.4	19.9	11.3	8.33	6.88	5.93	5.21	4.22	3.49	1.85
1.75V/cell	121	77.2	63.8	52.3	37.1	26.0	20.3	11.5	8.55	7.03	6.06	5.31	4.32	3.56	1.89
1.70V/cell	125	78.7	64.9	53.4	37.8	26.8	20.9	11.8	8.74	7.20	6.20	5.45	4.42	3.62	1.92
1.67V/cell	128	80.9	66.2	54.6	38.5	27.2	21.2	12.1	8.92	7.32	6.32	5.54	4.48	3.67	1.95
1.60V/cell	131	84.0	68.3	56.1	39.5	27.8	21.7	12.5	9.18	7.51	6.45	5.66	4.57	3.74	1.97

# TN12-18 [12V 18Ah]

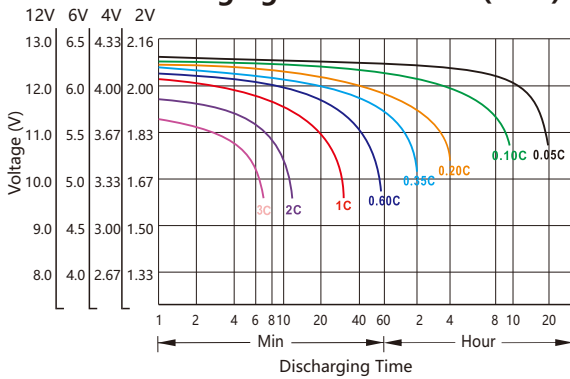


## Battery Dimensions(mm)

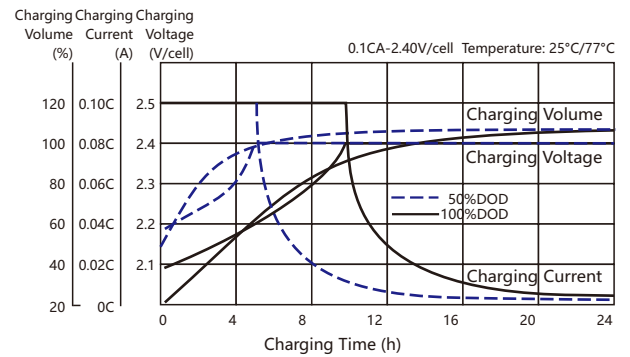


## Electrical Characteristics

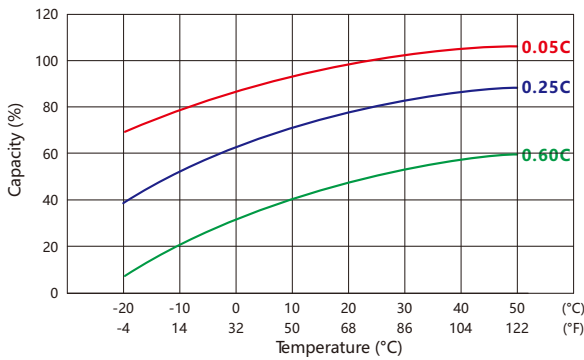
### Discharging Characteristics(25°C)



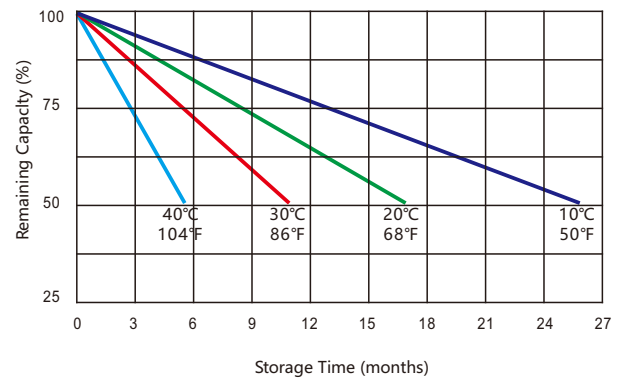
### Charging Characteristics(25°C)



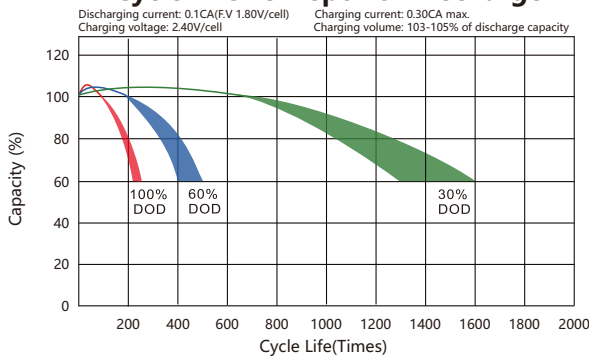
### Capacity vs Temperature



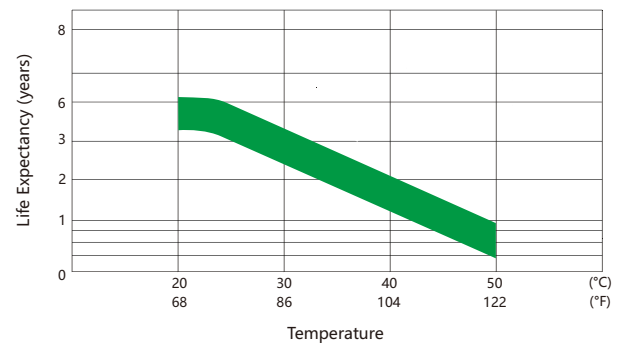
### Self-discharge vs Time



### Cycle Life vs Depth of Discharge



### Floating Life vs Temperature



## Usage and Maintenance

Charge Current	Equalization Charge	Float Charge
Limited current: $\leq 0.3C_{20A}$	Constant Voltage: 14.4~15.0V@25°C(77°F) Temp.Coefficient:-24mV/°C	Constant Voltage: 13.5~13.8V@25°C(77°F) Temp.Coefficient:-18mV/°C