

# TN12-80 [12V 80Ah]

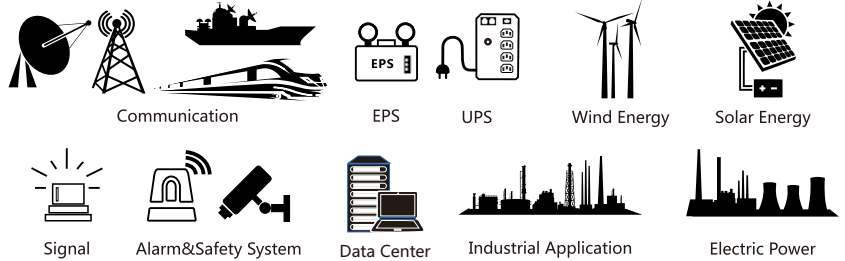


## Product Features

General Purpose (AGM)				6~10 years of design life@25°C
100%	↑98%	↑20%	↓50%	
Model Coverage Both Cycle & Float Application	Capacity Retention High Purity Electrolyte	Charge Acceptance Special Negative Additive	Grid Corrosion Rare-earth patent alloy	



## Product Applications



## Physical Specifications

Model	Dimensions ±5% (mm/inch)				Weight (kg/lbs)	Terminal	Container
TN12-80	Length	Width	Height	Total Height	24.0/52.9	I3	ABS UL94-HB (Optional: FR ABS UL94-V0)
	260/10.2	168/6.61	211/8.31	213.5/8.41			

## Product Specifications

Nominal Voltage	Rated Capacity 25°C/77°F	Internal Resistance	Max. Discharge Current	Operating Temp. Range
12V	84.6Ah 20hr Rate (1.80V/cell) 80.0Ah 10hr Rate (1.80V/cell) 70.0Ah 5hr Rate (1.75V/cell) 63.6Ah 3hr Rate (1.70V/cell)	6mΩ@25°C/77°F	576A (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	157	125	109	93.8	71.6	54.3	45.0	26.9	19.6	15.6	13.2	11.5	9.28	7.79	4.16
1.80V/cell	192	146	122	102	75.8	57.7	47.3	28.0	20.4	16.3	13.7	12.0	9.56	8.00	4.23
1.75V/cell	222	161	133	109	80.2	60.4	49.1	28.8	20.9	16.6	14.0	12.2	9.76	8.17	4.32
1.70V/cell	247	173	138	113	84.1	62.4	50.7	29.2	21.2	16.9	14.3	12.4	9.93	8.32	4.41
1.67V/cell	260	183	144	117	86.9	64.2	51.9	29.9	21.5	17.3	14.5	12.6	10.0	8.43	4.48
1.60V/cell	278	193	151	123	91.1	66.5	53.0	30.3	21.9	17.5	14.7	12.7	10.1	8.55	4.57

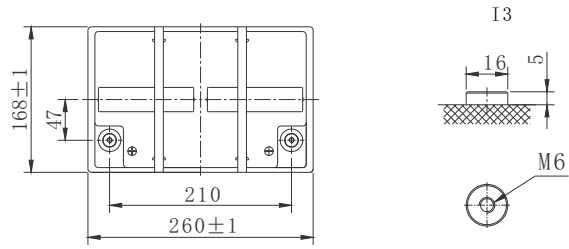
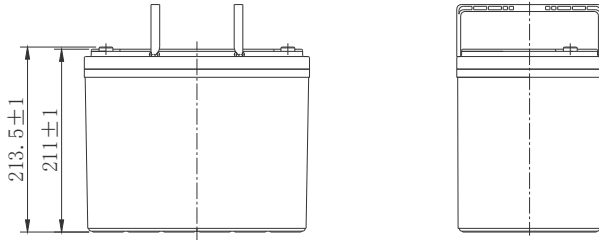
## Constant Power Discharge (W/cell)@25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	293	236	208	182	141	108	89.7	54.0	39.7	31.7	26.8	23.5	19.0	16.0	8.56
1.80V/cell	356	276	233	198	149	114	93.9	56.2	41.2	33.0	27.9	24.4	19.6	16.4	8.69
1.75V/cell	412	302	253	209	157	119	97.2	57.4	42.0	33.5	28.4	24.9	19.9	16.7	8.84
1.70V/cell	457	325	262	216	164	123	100	58.2	42.5	34.1	28.8	25.2	20.2	16.9	8.98
1.67V/cell	480	341	272	224	169	126	102	59.3	43.0	34.6	29.2	25.4	20.3	17.1	9.12
1.60V/cell	512	360	285	234	176	130	104	60.1	43.7	35.0	29.5	25.6	20.5	17.3	9.27

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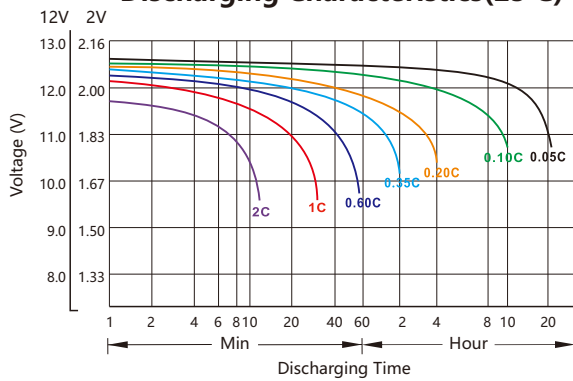


## Battery Dimensions(mm)

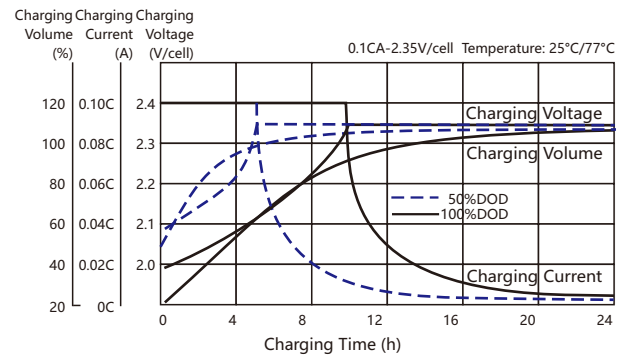


## Electrical Characteristics

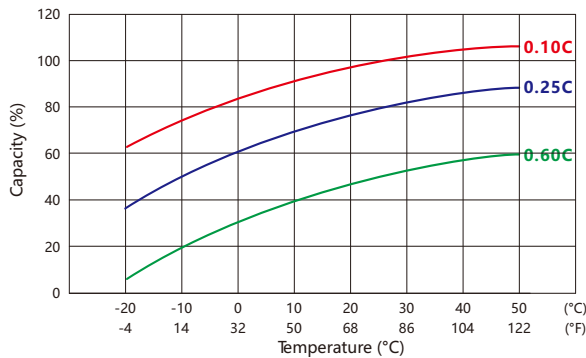
### Discharging Characteristics(25°C)



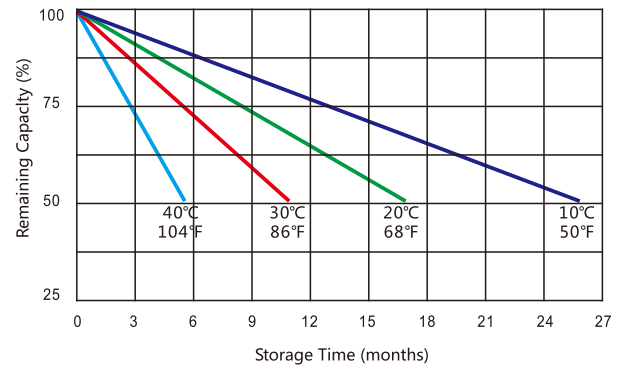
### Charging Characteristics(25°C)



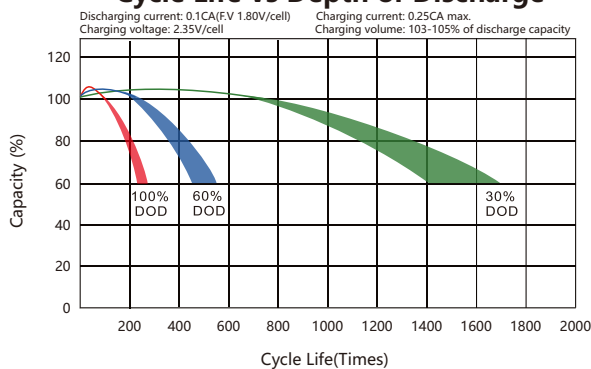
### Capacity vs Temperature



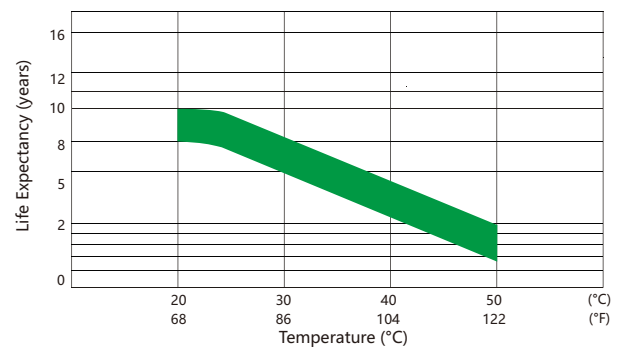
### Self-discharge vs Time



### Cycle Life vs Depth of Discharge



### Floating Life vs Temperature



## Usage and Maintenance

Charge Current	Equalization Charge	Float Charge
Limited current : $\leq 0.25 C_{10}A$	Constant Voltage: 14.1~14.4V@25°C(77°F) Temp.Coefficient:-24mV/°C	Constant Voltage: 13.5~13.8V@25°C(77°F) Temp.Coefficient:-18mV/°C