

TN12-38 [12V 38Ah]

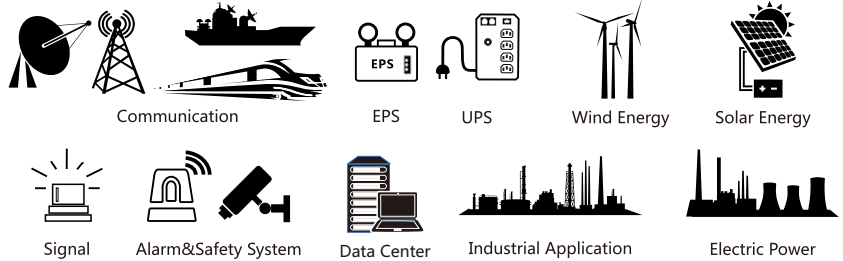


Product Features

General Purpose (AGM)		6~10 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 (mm/inch)				Weight (kg/lbs)	Terminal	Container
TN12-38	Length	Width	Height	Total Height	12.1/26.7	I3	ABS UL94-HB (Optional: FR ABS UL94-V0)
	198.5/7.81	166/6.54	169.5/6.67	169.5/6.67			

Product Specifications

Nominal Voltage	Rated Capacity@25°C/77°F	Internal Resistance	Max. Discharge Current	Operating Temp. Range
12V	40.2Ah 20hr Rate (1.80V/cell) 38.0Ah 10hr Rate (1.80V/cell) 33.3Ah 5hr Rate (1.75V/cell) 30.3Ah 3hr Rate (1.70V/cell)	10mΩ@25°C/77°F	273.6A (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	74.8	59.2	51.6	44.6	34.0	25.8	21.4	12.8	9.32	7.41	6.25	5.47	4.41	3.70	1.98
1.80V/cell	91.0	69.4	57.9	48.6	36.0	27.4	22.5	13.3	9.71	7.74	6.51	5.68	4.54	3.80	2.01
1.75V/cell	105	76.2	63.0	51.6	38.1	28.7	23.3	13.7	9.93	7.89	6.66	5.81	4.64	3.88	2.05
1.70V/cell	117	82.2	65.7	53.6	39.9	29.6	24.1	13.9	10.1	8.05	6.77	5.90	4.72	3.95	2.09
1.67V/cell	123	86.7	68.3	55.7	41.3	30.5	24.6	14.2	10.2	8.20	6.88	5.98	4.76	4.01	2.13
1.60V/cell	132	91.8	71.9	58.5	43.3	31.6	25.2	14.4	10.4	8.31	6.99	6.05	4.81	4.06	2.17

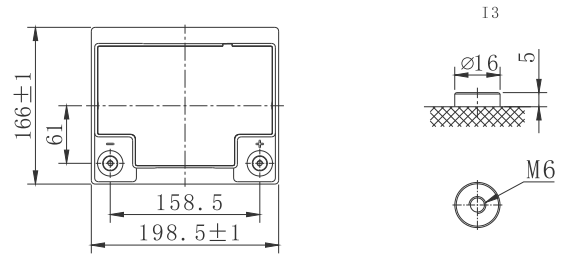
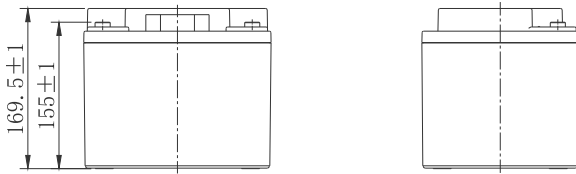
Constant Power Discharge (W/cell)@25°C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	139	112	98.9	86.5	66.9	51.1	42.6	25.7	18.9	15.0	12.8	11.2	9.04	7.60	4.07
1.80V/cell	169	131	111	93.9	70.7	54.2	44.6	26.7	19.6	15.7	13.2	11.6	9.29	7.78	4.13
1.75V/cell	196	143	120	99.3	74.5	56.6	46.2	27.3	19.9	15.9	13.5	11.8	9.47	7.93	4.20
1.70V/cell	217	154	125	103	77.9	58.4	47.6	27.7	20.2	16.2	13.7	12.0	9.59	8.04	4.27
1.67V/cell	228	162	129	107	80.3	59.9	48.6	28.2	20.4	16.4	13.9	12.1	9.65	8.13	4.33
1.60V/cell	243	171	135	111	83.8	61.7	49.5	28.5	20.7	16.6	14.0	12.2	9.71	8.21	4.40

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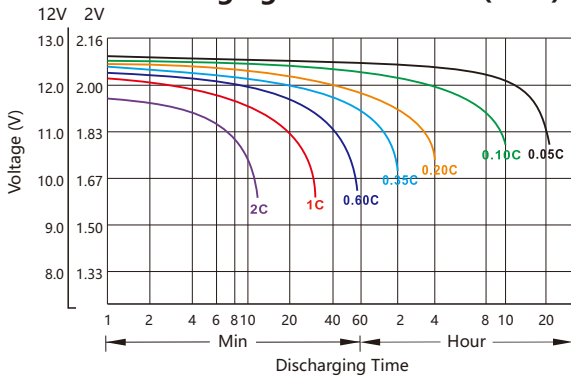


Battery Dimensions(mm)

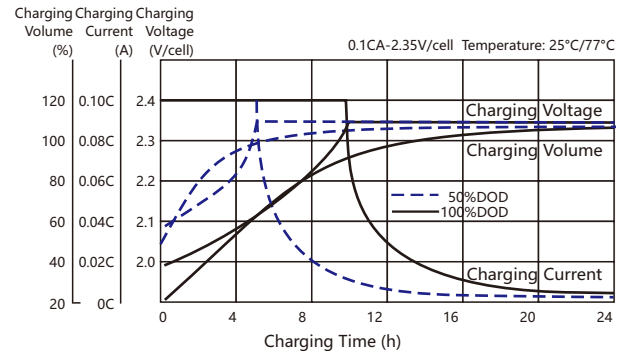


Electrical Characteristics

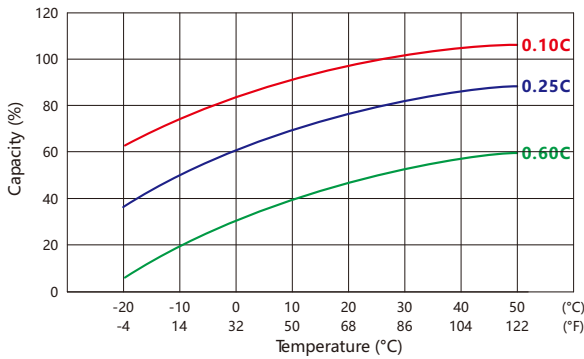
Discharging Characteristics(25°C)



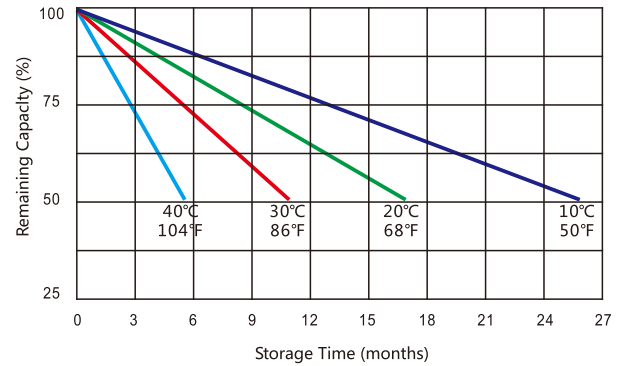
Charging Characteristics(25°C)



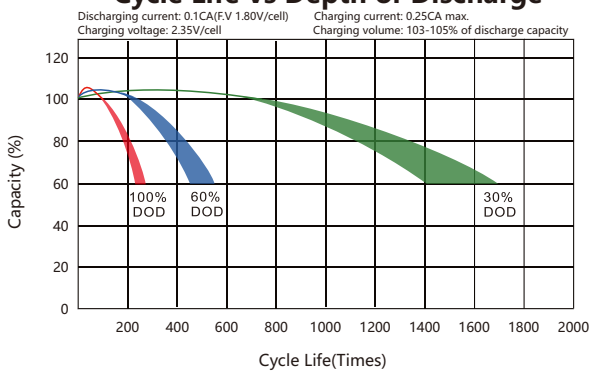
Capacity vs Temperature



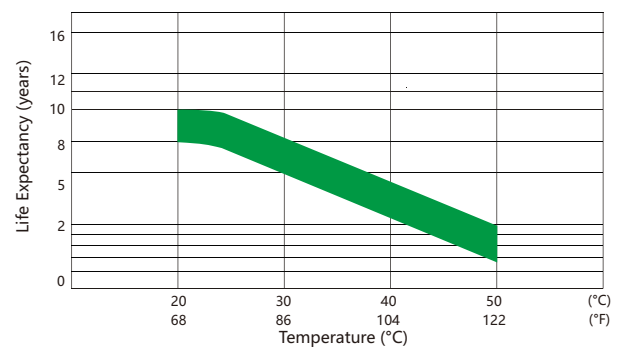
Self-discharge vs Time



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