

# M1275T

# MOTIVATION

HIGH PERFORMANCE DEEP CYCLE BATTERY



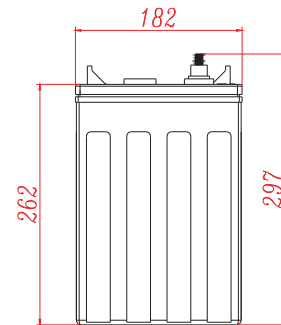
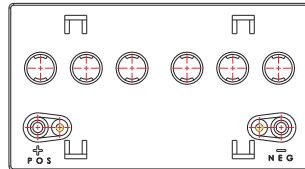
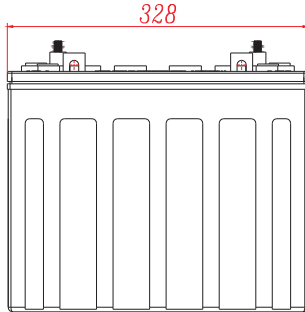
M1275T is a flooded lead acid battery specially designed for frequent deep cycle discharges. It adopts an innovative tubular plate technology, manufactured with die-casting positive spine and patent formula of active material, for high reliability and performance. The battery offers premium service life and power suitable for golf carts, electric and mobility vehicles, floor machines, and other industrial applications.

## Specifications

Voltage Per Unit	12V
Capacity	152Ah@20hr-rate to 1.65V per cell @25°C 128Ah@5hr-rate to 1.65V per cell @25°C
Approx Weight	Including electrolyte, 41.0 kg
Internal Resistance	Approx 6.0 mΩ
Operating Temperature Range	Discharge: -40°C to 60°C Charge: -20°C to 50°C Storage: -40°C to 60°C
Optimal Operating Temperature Range	25°C ± 5°C
Float Charging Voltage	13.8 to 14.4 VDC/unit average at 25°C
Maximum Charging Current	20A
Cycle Service	15.3 to 15.99 VDC/unit average at 25°C
Self Discharge	Self-discharge rate less than 3.5% per month at 25°C. Please charge batteries before use.
Container Material	PP
Recommended Single Point Watering Kits	Flow Rite BG-U48V-8J
Torque Setting	10-15Nm

## Dimensions

Unit: mm      Dimension: 328 (L) × 182(W) × 297(H)



### Constant Current Discharge Characteristics: A(25°C)

F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	20HR
9.60V	118.4	82.9	48.0	34.4	29.3	26.3	22.8	17.8	14.7	7.9
9.90V	115.7	81.0	46.9	33.6	28.7	25.7	22.3	17.4	14.3	7.6
10.2V	112.5	78.8	45.6	32.7	27.9	25.0	21.7	16.9	13.9	7.3
10.5V	108.2	75.7	43.9	31.4	26.8	24.0	20.8	16.2	13.4	7.0
10.8V	103.3	72.3	41.9	30.0	25.6	23.0	19.9	15.5	12.8	6.7
11.1V	97.8	68.5	39.7	28.4	24.3	21.8	18.9	14.7	12.1	6.1

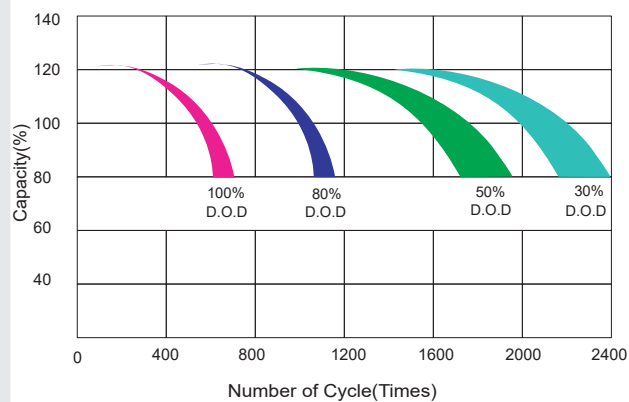
### Constant Power Discharge Characteristics: W(25°C)

F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	6HR	8HR	10HR	20HR
9.60V	1328.8	958.1	566.2	409.2	349.8	314.0	272.2	212.1	175.4	94.4
9.90V	1304.9	938.3	554.5	401.6	343.0	307.9	266.9	208.0	171.9	91.7
10.2V	1283.1	913.4	539.8	391.6	334.2	300.0	260.0	202.5	167.3	88.3
10.5V	1235.0	878.7	519.2	376.6	321.4	288.5	250.0	194.7	160.8	84.1
10.8V	1180.3	843.6	498.5	359.6	307.2	275.5	238.8	185.9	153.6	80.4
11.1V	1124.8	805.4	476.0	341.1	291.1	261.1	226.3	176.2	145.5	74.2

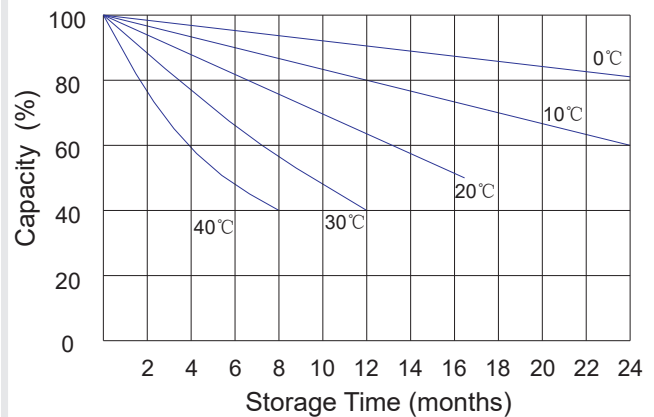
All mentioned values are average values      (Tolerance ±2%)

(Note) The company reserves the right to update the information above without prior notice.

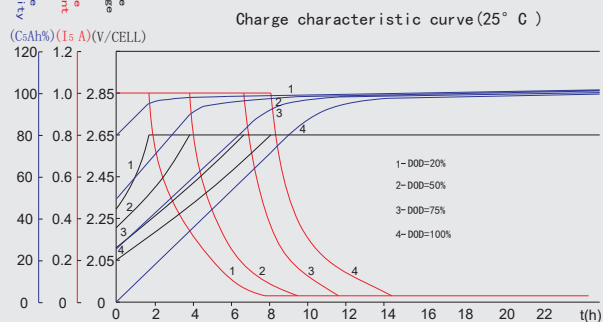
Life characteristics of cyclic use



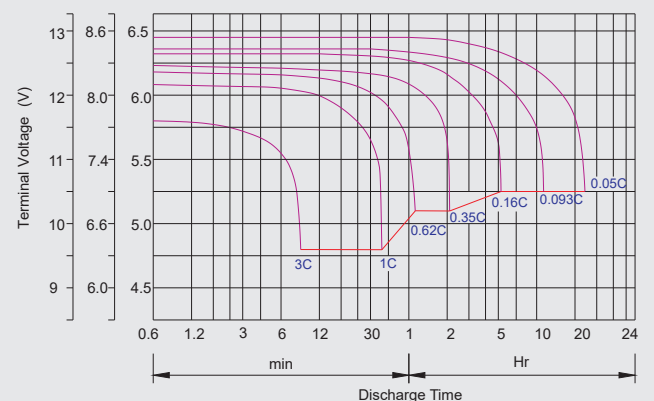
Storage characteristic



Charge characteristic Curve for standby use



Discharge characteristic Curve



## Discharge Current and Voltage

Final Discharge Voltage (V/cell)	1.75V	1.70V	1.60V
Discharge Current (A)	$A \leq 0.2C$	$0.2C < A < 1.0C$	$A \geq 1.0C$

Charge the batteries at least once every six months, if they are stored at 25°C.

Charging Method (C=C5) :

Constant Voltage	$0.2Cx2h + 2.65V/cell \times 12h$ , max current at 0.2C
Constant Current	$0.14Cx6h + 0.07Cx6h$

## Delta-Q Charge Profile: Algorithm ID 1

## Cycle Service Maintenance & Cautions

※ Avoid over discharging, especially when battery is used in series connections

※ Charge with recommend voltage, ensure battery is fully recharged.

In general, recharged capacity should be 1.2-1.3 times the discharged capacity.

※ Effect of temperature on cycle charge voltage:  $-4mV/^{\circ}C$  per cell

※ There are a number of factors that will affect the length of cyclic service.

The most significant are depth of discharge, ambient temperature,

discharge rate, and the manner in which the battery is recharged.