



# General VRLA Battery

## FM500G (2V500Ah)

The LONGWAY General Series 2V batteries (100-3000Ah) are designed and developed using AGM technology and valve controlled sealing technology. They can meet conventional performance requirements, with a designed float charging life of over 15 years. The valve controlled non-spillable structure design allows safe use in any direction and is certified by sea and air freight. The battery performance also meets international standards. such as IEC60896-2012, UL1989.etc.



### General Feature

- High reliability, safe without leakage, can be used in any position
- Excellent recovery performance after deep discharge
- Environmentally friendly products.  
Meet EU battery directive RoHS and REACH standards
- Maintenance free
- Widely applicable temperature range, can be used at -20 °C~60°C
- Low self-discharge rate. The average monthly self-discharge rate of the battery is less than 2.5%  
(It is recommended to recharge after storage for 6 months or before use)

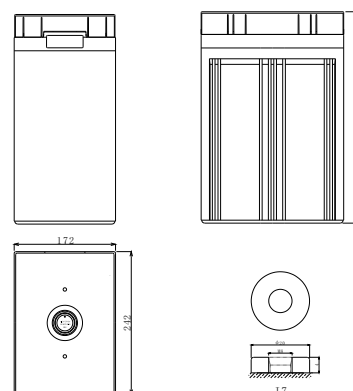
### Applications

- Electrical power system
- Solar system
- Electrical test equipment
- Telecom & Network Equipment
- UPS, fire alarm & safe-protection
- Emergency lighting device; Alarm system
- Robots and control machines and other

### Performance

Nominal Voltage	2V (1cell)
Capacity	@25°C
10hr Rate (50.0A)	500Ah @ to 1.75V/cell
5hr Rate (85.0A)	425Ah @ to 1.70V/cell
3hr Rate (125A)	375Ah @ to 1.60V/cell
Weight	Approx (30.0±3%)kg ( 66.14lbs )
Internal Resistance	Approx 0.60mΩ fully charged @25°C
Maximum Discharge Current	400A(3sec)
Terminal	I7
Operating Temperature Range	Discharge:-20°C~60°C; Charge:0°C~50°C Storage:-20°C~40°C
Container Material	ABS(UL94 HB)/UL94-V0 Optional

### Dimensions



Length	242mm	9.53inch
Width	173mm	6.81inch
Height	338mm	13.31inch
Total height	365mm	14.37inch

### Battery use

#### Cycle use

1. Limit the initial charging current to no more than 100A
2. Keep charging voltage at 2.40-2.50V/unit, and continue charging at least 3 hours after the charging current reduces to 10A to ensure full charge
3. The compensation coefficient of charging voltage and temperature is -5mv/cell /°C

#### Float use

1. Limit the initial charging current to no more than 100A
2. Keep charging voltage at 2.25-2.30V/unit. When the voltage reaches the constant voltage, the current gradually decreases until the battery is fully charged and continues to charge
3. The compensation coefficient of charging voltage and temperature is -3mv/cell /°C



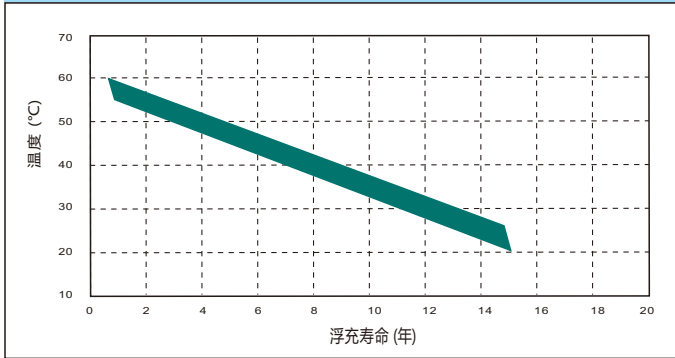
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 KY-IOP-LW2-500 B0. May 2023

Note: This information usually describes use only and is not intended to make any warranties or promises regarding the battery. Battery specifications and battery design are subject to change without prior notice. Please contact LONGWAY Battery for the latest information.

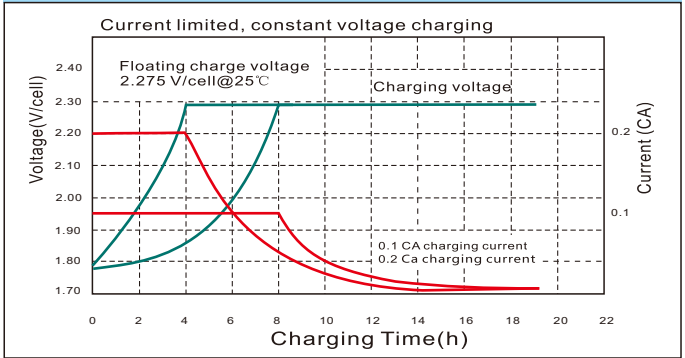


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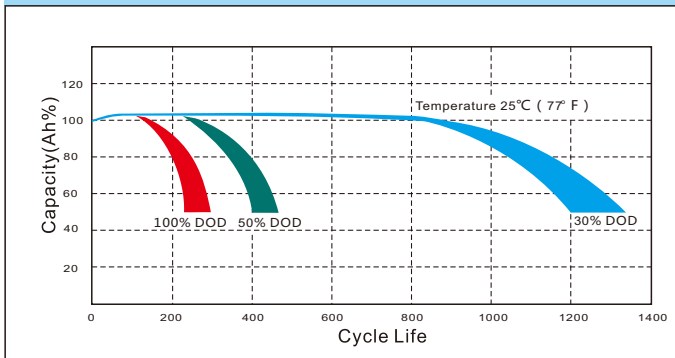
## Floating Charging Life VS Temperature



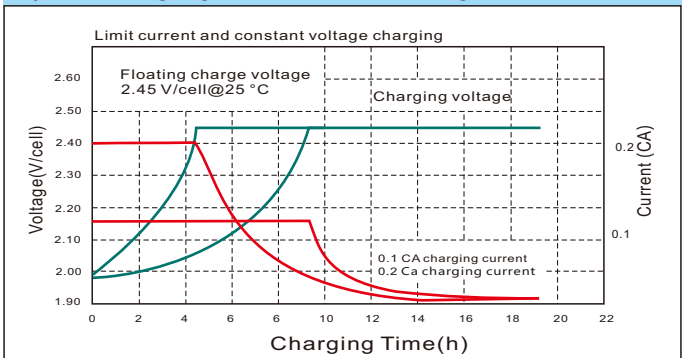
## Floating Charging Characteristics Diagram



## Cycle Life



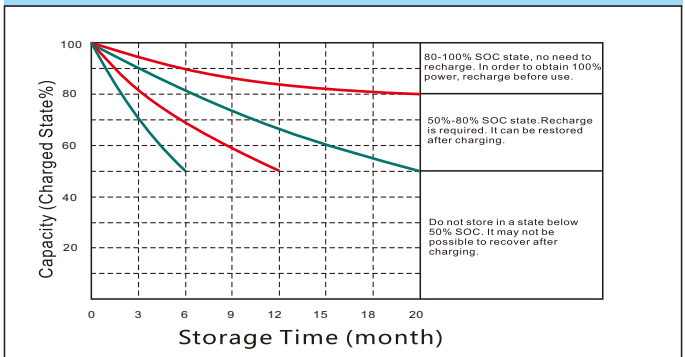
## Cycle charging characteristic diagram



## Temperature and capacity characteristics



## Self-discharge characteristic



## Constant current characteristics(A,25°C)

F.V/TIME	15min	30min	60min	2h	3h	5h	8h	10h	20h	100h
1.60	675.0	525.0	280.0	185.2	133.5	93.89	65.98	53.29	26.64	6.344
1.65	627.8	488.3	260.4	184.3	132.8	93.43	65.65	53.18	26.59	6.331
1.70	648.0	504.0	268.8	183.4	132.2	92.96	65.33	52.82	26.41	6.288
1.75	627.8	488.3	260.4	182.5	131.5	92.50	65.00	52.66	26.33	6.269
1.80	615.6	478.8	255.4	178.9	128.9	90.65	61.75	52.50	26.25	6.250

## Constant power discharge characteristic (W,25°C)

F.V/TIME	15min	30min	60min	2h	3h	5h	8h	10h	20h	24h
1.60	1215	971.3	536.2	340.8	263.6	186.8	131.6	106.6	53.29	12.69
1.65	1130	903.3	498.7	339.2	262.3	185.9	131.0	106.4	53.18	12.66
1.70	1166	932.4	514.8	337.5	261.0	185.0	130.3	105.6	52.82	12.58
1.75	1130	903.3	498.7	335.8	259.7	184.1	129.7	105.3	52.66	12.54
1.80	1108	885.8	489.0	329.1	254.5	180.4	123.2	105.0	52.50	12.50



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