



# General VRLA Battery

## 6FM50G (12V50Ah)

The LONGWAY General Series middle batteries ( more than 24Ah) 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 8 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)

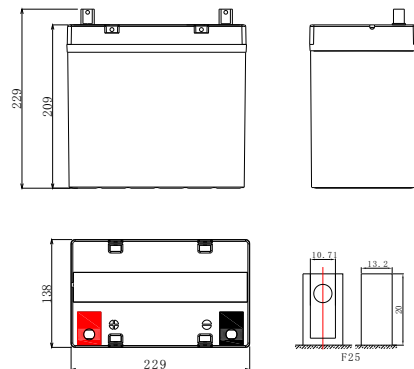
### Applications

- Emergency lights; Alarm system
- Electrical test equipment; communication Equipment
- Uninterruptible power supply; Fire & Security
- Electric toys; Control instruments
- Portable Movie & Video lights
- Electric tools; Solar system
- Robots and control machines and other

### Performance

Nominal Voltage	12V (6cells)
Capacity	@25°C
10hr Rate (5.00A)	50.0Ah @ to 1.75V/cell
5hr Rate (9.35A)	46.8Ah @ to 1.70V/cell
3hr Rate (12.5 A)	37.5Ah @ to 1.60V/cell
Weight	Approx (15.8±3%)kg ( 34.83lbs )
Internal Resistance	Approx 6.50mΩ fully charged @25°C
Maximum Discharge Current	260A(3sec)
Terminal	F25
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	229mm	9.02inch
Width	138mm	5.43inch
Height	209mm	8.23inch
Total height	229mm	9.02inch

### Battery use

#### Cycle use

1. Limit the initial charging current to no more than 12.5A
2. Keep charging voltage at 14.4-15.0V/unit.and continue charging at least 3 hours after the charging current reduces to 1.0A 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 12.5A
2. Keep charging voltage at 13.5-13.8V/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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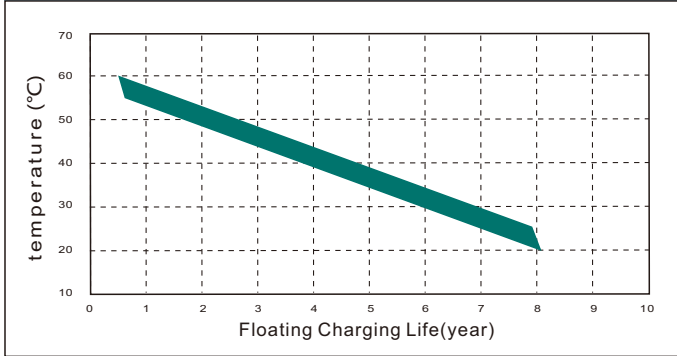
Add: Kaiying Industrial Area, Chengxiang Town, Anxi, Quanzhou, Fujian Province, China  
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Note: This information usually describes use only and is not intended to make any warranties or promises regarding the battery. Battery specifications and battery design are subject to change without prior notice. Please contact LONGWAY Battery for the latest information.

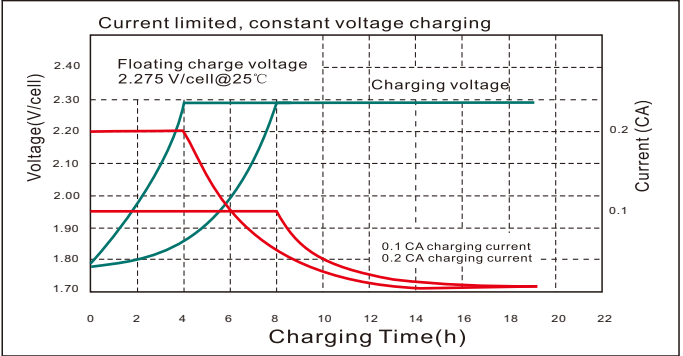


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## Floating Charging Life VS Temperature



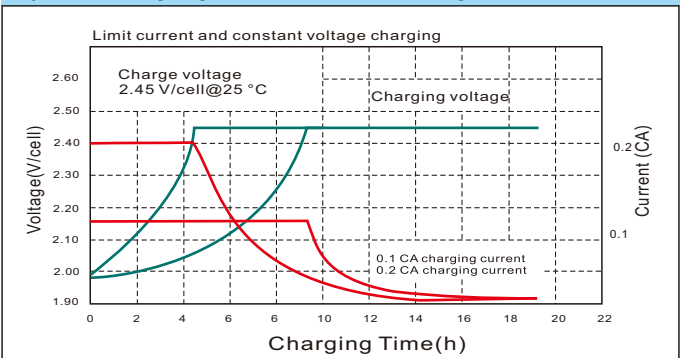
## Floating Charging Characteristics Diagram



## Cycle Life



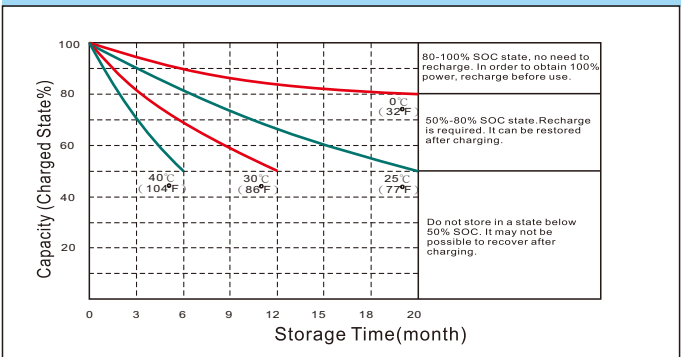
## Cycle charging characteristic diagram



## Temperature and capacity characteristics



## Self-discharge characteristic



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

F.V/TIME	5min	10min	15min	30min	60min	90min	2h	3h	5h	10h	20h
9.6	135	115	87.5	51.5	28.0	17.3	12.7	8.73	5.84	5.08	2.61
9.9	131	112	85.8	50.5	27.4	17.2	12.6	8.69	5.81	5.05	2.60
10.2	128	109	84.0	49.4	26.9	17.0	12.5	8.60	5.78	5.03	2.59
10.5	121	106	81.4	47.9	26.0	16.8	12.4	8.51	5.77	5.02	2.58
10.8	111	103	79.8	47.0	25.5	16.7	12.3	8.43	5.75	5.00	2.58

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

F.V/TIME	5min	10min	15min	30min	60min	90min	2h	3h	5h	10h	20h
9.6	1458	1256	997.5	577.8	319.2	199.8	149.2	103.2	70.04	60.60	31.36
9.9	1414	1218	941.5	566.3	312.8	198.8	148.5	102.7	69.69	60.30	31.21
10.2	1385	1193	922.3	554.7	306.4	196.9	147.0	101.7	69.41	60.06	31.09
10.5	1305	1155	893.5	537.4	296.9	194.9	145.5	100.6	69.21	59.88	30.99
10.8	1196	1121	876.2	527.0	291.1	192.9	144.1	99.6	69.00	59.70	30.90



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