General VRLA Battery
3FM20 (6V20Ah)

The LONGWAY General Series small batteries (less 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 5 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 IEC61056-2012,JIS C8702-1-2003 , 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 ℃~60℃
- 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)

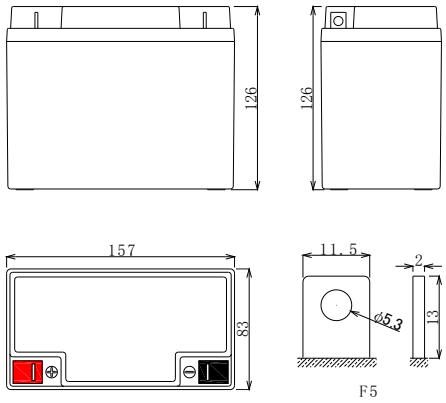
Applications

- 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	6V (3cells)
Capacity	@25℃
20hr Rate (1.00A)	22.0Ah @ to 1.75V/cell
3hr Rate (5.00A)	15.0Ah @ to 1.70V/cell
27min Rate (20.0A)	11.6 Ah @ to 1.60V/cell
Weight	Approx (3.50±3%)kg (7.72lbs)
Internal Resistance	Approx 7.00mΩ fully charged @25℃
Maximum Discharge Current	160A(3sec)
Terminal	F5
Operating Temperature Range	Discharge:-20℃~60℃;Charge:0℃~50℃ Storage:-20℃~40℃
Container Material	ABS(UL94 HB)/UL94-V0 Optional

Dimensions



Length	157.0mm	6.18inch
Width	83.0mm	3.27inch
Height	126.0mm	4.96inch
Total height	126.0mm	4.96inch

Battery use

Cycle use

1. Limit the initial charging current to no more than 6A
2. Keep charging voltage at 7.20-7.50V/unit.and continue charging at least 3 hours after the charging current reduces to 0.4A to ensure full charge
3. The compensation coefficient of charging voltage and temperature is -5mv/cell/℃

Float use

1. Limit the initial charging current to no more than 6A
2. Keep charging voltage at 6.75-6.90V/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/℃

ISO 9001 MH46789 CE

Kaiying Power Supply & Electrical Equip Co., Ltd Email: sales@longwaybattery.com
Tel:0595-68782266 Fax:0595-68782222 Website: http://www.longwaybattery.com
Add: Kaiying Industrial Area, Chengxiang Town, Anxi, Quanzhou, Fujian Province, China
KY-IOP-LW6-20 B0. May 2023

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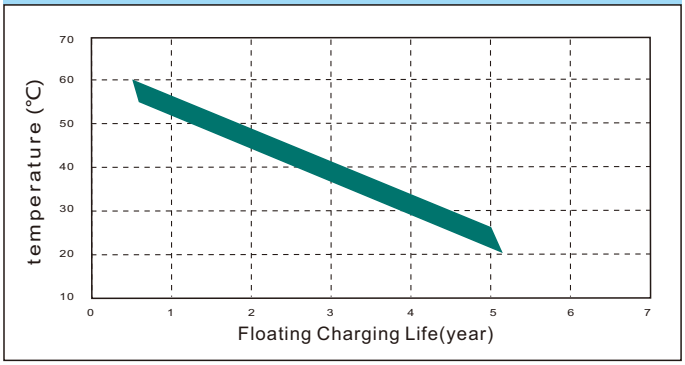
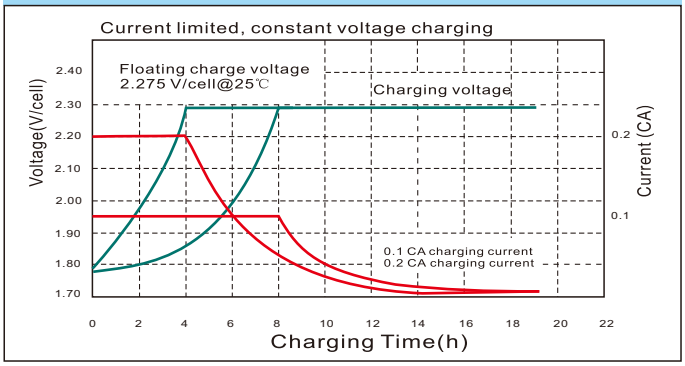
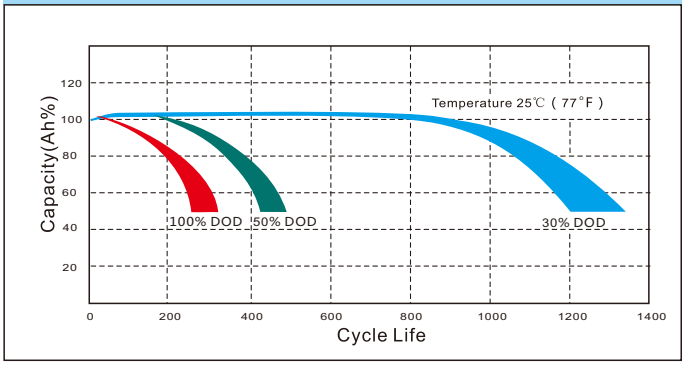
Floating Charging Life VS Temperature



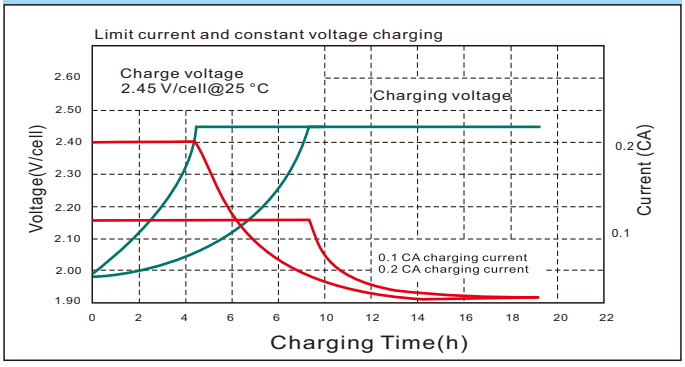
Floating Charging Characteristics Diagram



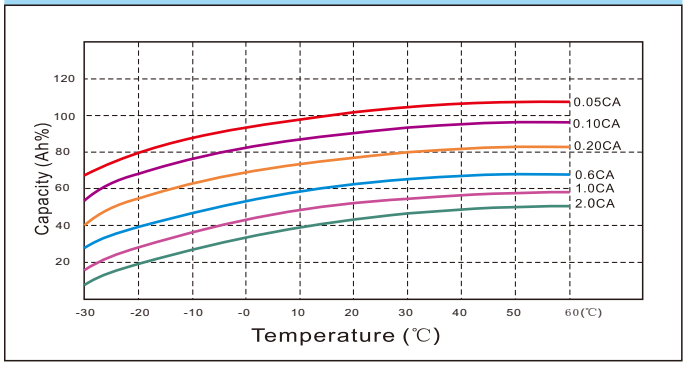
Cycle Life



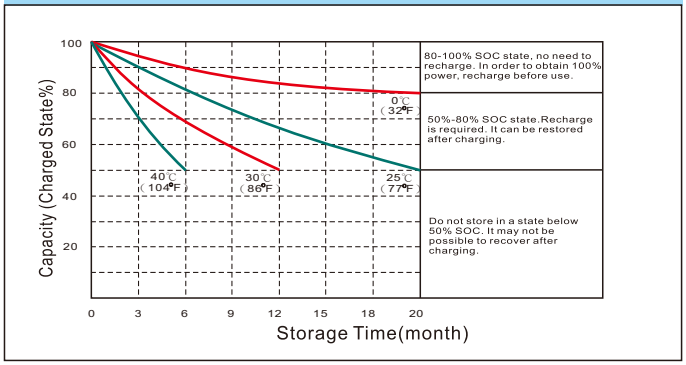
Cycle charging characteristic diagram



Temperature and capacity characteristics



Self-discharge characteristic



Constant current characteristics(A,25℃)

F.V/TIME	5min	10min	15min	30min	60min	90min	2h	3h	5h	10h	20h
4.80	80.0	50.0	40.0	20.6	12.0	7.31	5.58	3.65	2.23	1.89	1.02
4.95	77.6	48.5	38.8	20.0	11.6	7.24	5.53	3.62	2.22	1.88	1.01
5.10	76.0	47.5	38.4	19.8	11.5	7.20	5.50	3.60	2.21	1.87	1.01
5.25	73.6	46.0	36.8	19.0	11.0	7.13	5.45	3.56	2.20	1.86	1.00
5.40	71.4	44.7	36.5	18.8	10.9	7.06	5.39	3.53	2.20	1.86	1.00

Constant power discharge characteristic (W,25℃)

F.V/TIME	5min	10min	15min	30min	60min	90min	2h	3h	5h	10h	20h
4.80	446	282	228	118	69.5	42.8	33.2	21.8	13.4	11.3	6.09
4.95	433	274	221	114	67.4	42.3	32.8	21.6	13.3	11.3	6.06
5.10	424	268	219	113	66.7	42.1	32.7	21.5	13.3	11.2	6.04
5.25	411	259	210	109	63.9	41.7	32.3	21.3	13.2	11.2	6.01
5.40	399	252	208	108	63.4	41.3	32.0	21.1	13.2	11.2	6.00

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