



# Telecom/Power Backup Battery

## 6FM180FR (12V180Ah)

LONGWAY Telecom/ power backup battery series adopts front terminal design, which has the advantages of faster installation, saving floor space, long floating service design life, high energy density, leakage prevention and maintenance free. At the same time, the series of products designed standby life of 12 years. The products pass UL, CE, RoHS certification, and can be shipped by sea or air.



### General Feature

- High reliability, safe without leakage. Maintenance free
- Thick plate, special formula paste process, with a long service life
- Environmentally friendly products  
Meet EU battery directive RoHS and REACH standards
- The partition design protects the terminal from short circuit
- Widely applicable temperature range, can be used at -20°C~60°C
- Long Storage time. Battery with full state of charge under room temperature, after 6-12 months storage, it can be used & recovered (It is recommended to recharge after storage for 6 months or before use)

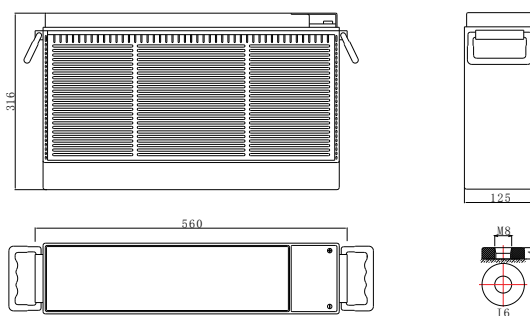
### Applications

- Telecom systems
- Power Backup
- Electric power system
- Communication base station
- Energy storage systems
- Solar systems

### Performance

Nominal Voltage	6V (3cell)
Capacity	@25°C
20hr Rate (9.00A)	183Ah @ to 1.75V/cell
10hr Rate (18.0A)	180Ah @ to 1.70V/cell
3hr Rate (45.0A)	135Ah @ to 1.60V/cell
Weight	Approx (54.5±3%)kg (120lbs)
Internal Resistance	Approx 3.500mΩ fully charged @25°C
Maximum Discharge Current	900A(3sec)
Terminal	I6
Operating Temperature Range	Discharge:-20°C~60C;Charge:0C-50°C Storage:-20°C~40°C
Container Material	ABS(UL94 HB)/UL94-V0 Optional

### Dimensions



Lenght	560mm	22.1inch
Width	125mm	4.92inch
Height	316mm	12.4inch
Total height	316mm	12.4inch

### Battery use

#### Cycle use

- 1.Limit the initial charging current to no more than 45.0A
- 2.Keep charging voltage at14.40-15.00V/unit, and continue charging at least 3 hours after the charging current reduces to 3.60A toensure 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 45.0A
2. Keep charging voltage at 13.50-13.80V/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-FR12-180/I7-1 B0. August 2023

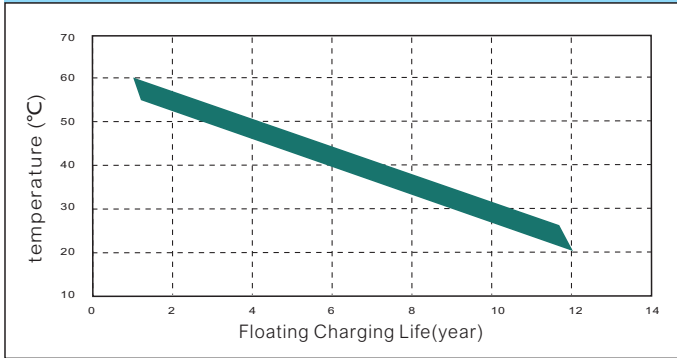
Note: This information usually describes use only and is not intended to make any warranties or promises regarding the battery, Battery specifications and battery design are subject to change without prior notice. Please contact LONGWAY Battery for the latest information.



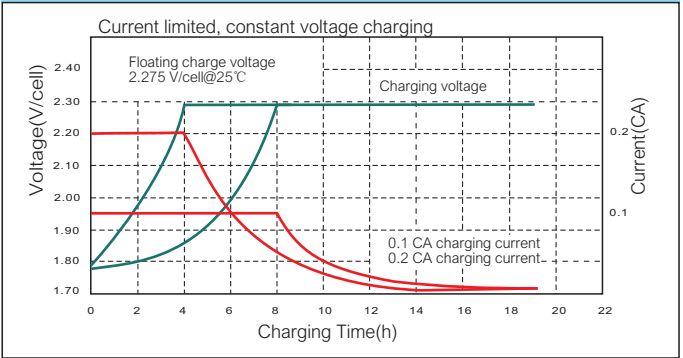
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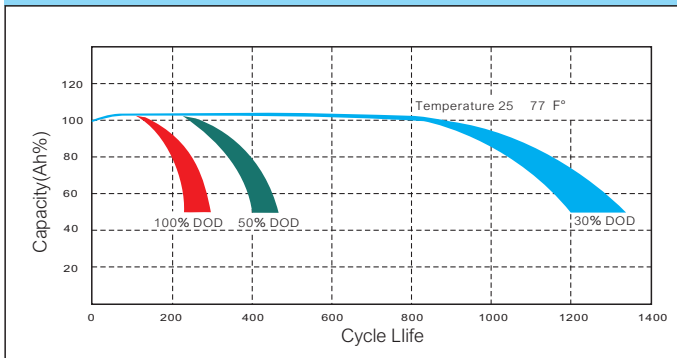
### Floating Charging Life VS Temperature



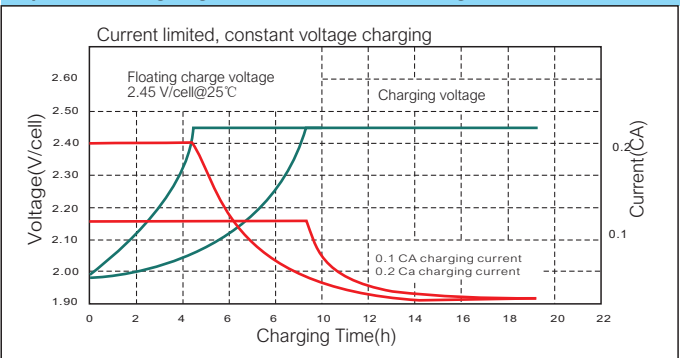
### Floating Charging Characteristics Diagram



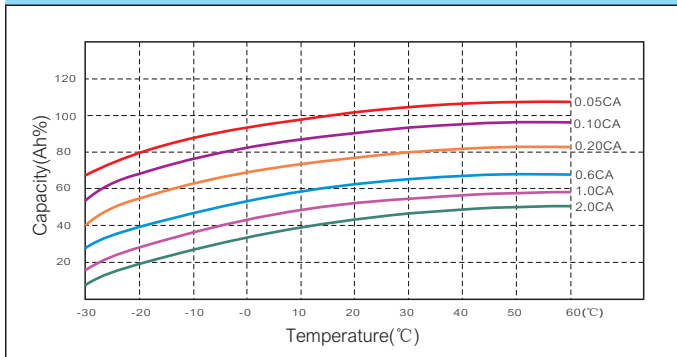
### Cycle Life



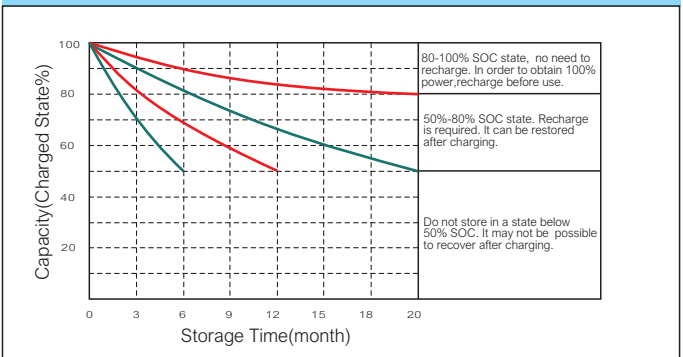
### Cycle charging characteristic diagram



### Temperature and capacity characteristics



### Self-discharge characteristic



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

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60	450.0	360.0	306.0	189.0	99.00	64.90	45.68	31.06	20.20	18.27	9.23
9.90	436.5	349.2	299.9	185.2	97.02	64.58	45.45	30.91	20.00	18.18	9.18
10.20	427.5	342.0	293.8	181.4	95.04	63.63	45.00	30.60	19.92	18.11	9.14
10.50	414.0	331.2	284.6	175.8	92.07	63.00	44.55	30.29	19.80	18.05	9.11
10.80	351.0	321.5	279.1	172.4	90.29	62.36	44.10	29.99	19.60	18.00	9.09

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

F.V/TIME	5min	10min	15min	30min	60min	2h	3h	5h	8h	10h	20h
9.60	4725	3888	3376	2155	1146	751.6	537.1	367.1	242.4	218.1	110.7
9.90	4583	3771	3309	2112	1106	747.9	534.5	365.3	240.0	217.1	110.2
10.20	4489	3694	3241	2068	1083	736.8	529.2	361.7	239.0	216.2	109.7
10.50	4347	3577	3140	2004	1050	729.5	523.9	358.1	237.6	215.5	109.4
10.80	3686	3472	3079	1965	1029	722.1	518.6	354.5	235.2	214.9	109.1



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