



2FM9 (4V9.0Ah)

2FM9 is a general purpose battery with 5 years life in standby service, or more than 260 cycles at 100% D.O.D by cyclic use. As with all QiangJun batteries, all FM models are rechargeable, highly efficient, leak proof and maintenance free.

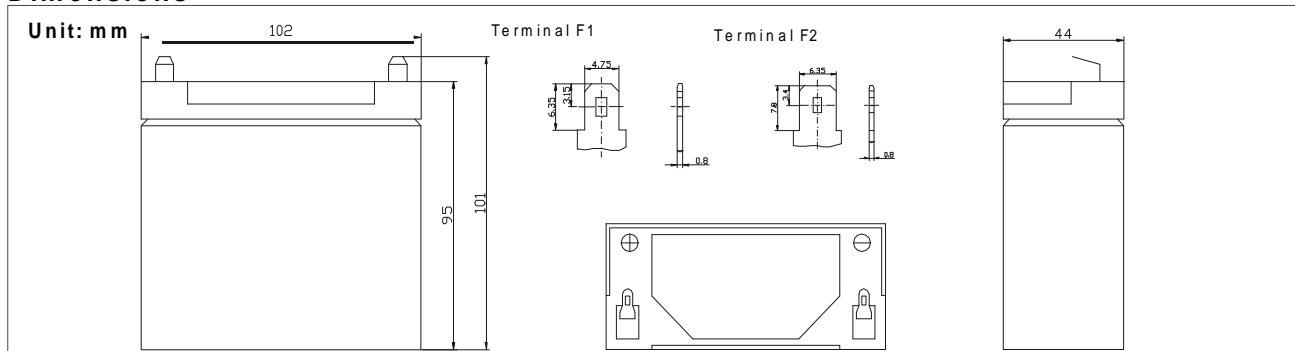


Specification

Cells Per Unit	2
Voltage Per Unit	4
Capacity	9.0Ah@ 20hr-rate to 1.75V per cell @ 25°C
Weight	90 A (5 sec)
Max. Discharge Current	Approx. 10 m
Internal Resistance	Discharge: -20°C~60°C Charge: 0°C~50°C St orage: -20°C~60°C
Operating Temperature Range	25°C±5°C
Normal Operating Temperature Range	4.5 to 4.6 VDC/unit Average at 25°C
Float charging Voltage	2.7 A
Recommended Maximum Charging Current Limit	4.8 to 5.0 VDC/unit Average at 25°C
Equalization and Cycle Service	QiangJun batteries can be stored for more than 6 month at 25°C. Please charge batteries before using. For higher temperature, the time interval will be shorter.
Self Discharge	Faston Tab 187(F1)/Faston Tab 250(F2)
Terminal	A.B.S. (UL94-HB) Flammability resistance of UL94-V2 can be available upon request.
Constainer Material	



Dimensions



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

F.V/Time	5 MIN	10 MIN	15 MIN		1 HR	2 HR	3 HR	4 HR	5 HR	8 HR	10 HR	20 HR
1.60V	37.4	25.0	19.2	10.6	6.25	3.74	2.30	1.89	1.52	1.12	0.88	0.50
1.67V	35.0	23.3	18.0	10.4	6.21	3.72	2.30	1.88	1.51	1.12	0.87	0.48
1.70V	33.1	22.6	17.6	10.3	6.17	3.71	2.29	1.87	1.50	1.12	0.86	0.47
1.75V	29.9	21.1	16.7	10.1	6.08	3.66	2.28	1.86	1.49	1.12	0.86	0.45
1.80V	26.7	19.7	15.8	9.84	5.99	3.60	2.26	1.85	1.49	1.11	0.84	0.43
1.85V	23.5	18.2	14.9	9.59	5.90	3.55	2.24	1.85	1.48	1.11	0.83	0.42

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

F.V/Time	5 MIN	10 MIN	15 MIN	30 MIN	1 HR	2 HR	3 HR	4 HR	5 HR	8 HR	10 HR	20 HR
1.60V	72.0	46.8	38.0	21.1	12.5	7.48	4.60	3.76	3.57	2.24	1.76	0.98
1.67V	67.5	45.0	36.1	20.8	12.4	7.43	4.59	3.75	3.55	2.24	1.74	0.95
1.70V	66.2	43.7	35.3	20.6	12.4	7.42	4.58	3.75	3.54	2.22	1.72	0.93
1.75V	59.8	41.9	33.4	20.1	12.2	7.30	4.55	3.73	3.53	2.21	1.70	0.89
1.80V	53.4	39.2	31.6	19.7	12.0	7.20	4.52	3.70	3.52	2.21	1.67	0.86
1.85V	47.0	36.5	29.7	19.2	11.8	7.09	4.48	3.67	3.51	2.21	1.65	0.84

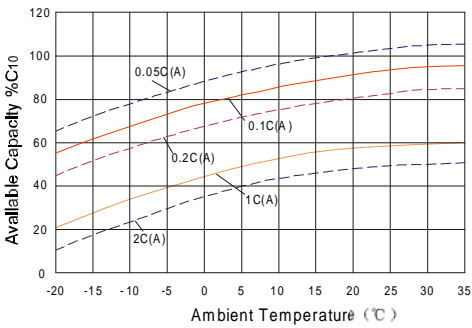
All mentioned values are average values.

2FM9

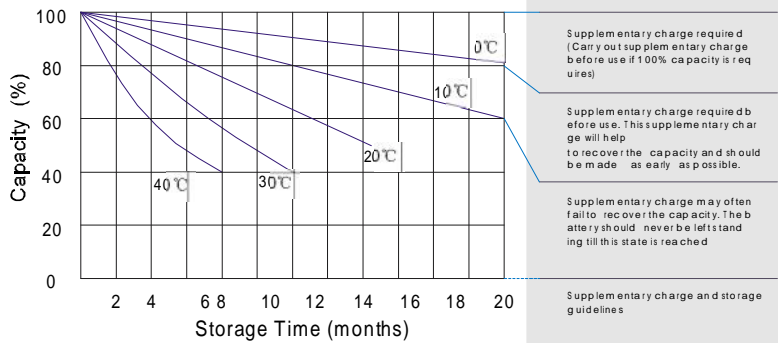
4V9.0Ah



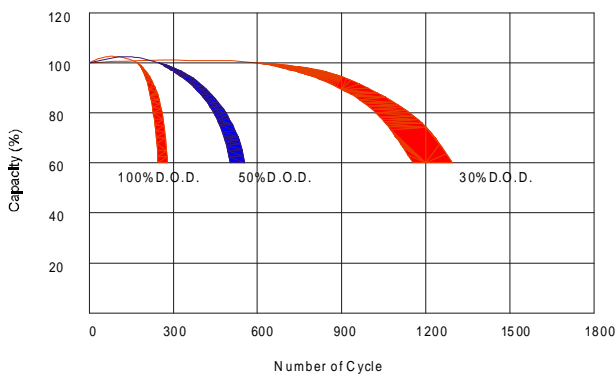
Temperature effects curve



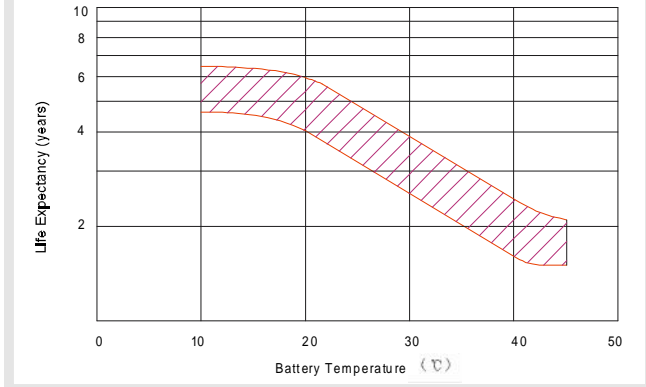
Storage characteristic



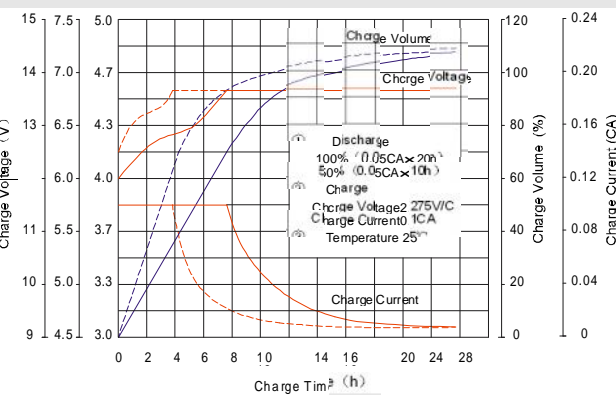
Life characteristics of cyclic use



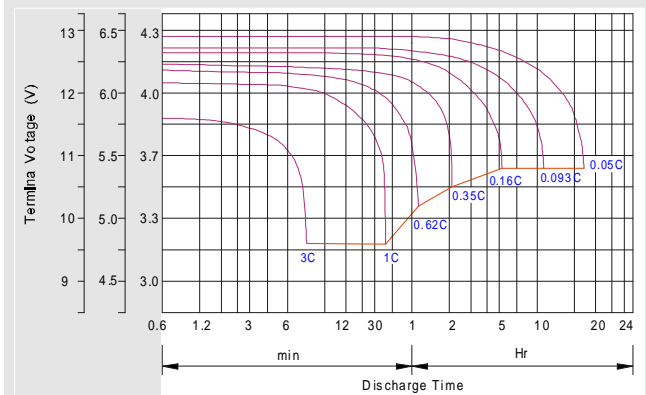
Effect of Temperature on long term float life



Charge characteristic curve for standby use



Discharge characteristic curve



Charging Procedures

Application	Charge Voltage (V)			Max. Charge Current
	Temperature	Set point	Allowable range	
Cycle Use	25°C	14.7	14.4~15.0	0.3C
Standby	25°C	13.7	13.6~13.8	0.3C

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current (A)	A 0.2C	0.2C < (A) <	(A) ≥ 1.0C

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

Charging Method:

Constant Voltage	14.4~15.0V, 5~11h, Max. Current 0.1CA
Constant Current	0.1CA x 5h
Fast	0.3CA x 1.7h

Charging Procedures (4V series)

Application	Charge Voltage (V)			Max. Charge Current
	Temperature	Set point	Allowable range	
Cycle Use	25°C	4.9	4.8~5.0	0.3C
Standby	25°C	4.55	4.5~4.6	0.3C

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