



6FM20 (12V20.0Ah)



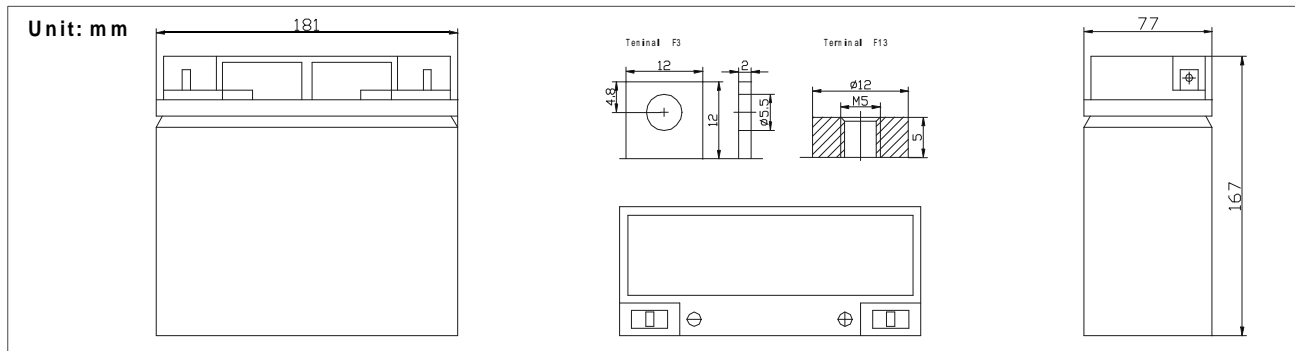
6FM20 is a general purpose battery with 5 years life in standby service, or more than 260 cycles at 100% D.O.D by cyclic use. As with all QiangJun batteries, all FM models are rechargeable, highly efficient, leak proof and maintenance free.

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	20.0Ah@ 20hr-rate to 1.75V per cell @ 25°C
Weight	Approx. 5.9 Kg
Max. Discharge Current	200 A (5 sec)Ap
Internal Resistance	prox. 12 m
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C±5°C
Float charging Voltage	13.6 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	6.0 A
Equalization and Cycle Service	14.4 to 15.0 VDC/unit Average at 25°C
Self Discharge	QiangJun batteries can be stored for more than 6 months at 25°C. Please charge batteries before using. For higher temperature, the time interval will be shorter.
Terminal	Faston F3/F13
Container Material	A.B.S. (UL94-HB) Flammability resistance of UL94-V2 can be available upon request.



Dimensions



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

F.V/Time	5MIN	10MIN	15MIN		1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	83.0	55.5	42.7	23.5	13.9	8.32	5.12	4.20	3.38	2.48	1.96	1.10
1.67V	77.7	51.8	40.1	23.1	13.8	8.26	5.10	4.18	3.36	2.48	1.94	1.06
1.70V	73.5	50.2	39.2	22.9	13.7	8.24	5.08	4.16	3.34	2.48	1.92	1.04
1.75V	66.4	47.0	37.1	22.4	13.5	8.14	5.06	4.14	3.32	2.48	1.90	1.00
1.80V	59.3	43.8	35.1	21.9	13.3	8.00	5.02	4.12	3.30	2.46	1.86	0.96
1.85V	52.3	40.5	33.0	21.3	13.1	7.88	4.98	4.10	3.28	2.46	1.84	0.94

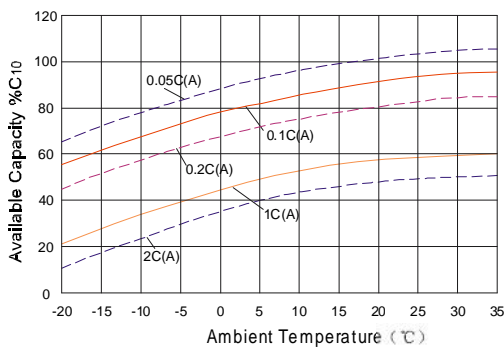
Constant Power Discharge Characteristics Unit: W(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	160	104	84.5	46.9	27.7	16.6	10.2	8.36	7.94	4.98	3.90	2.18
1.67V	150	100	80.2	46.2	27.7	16.5	10.2	8.34	7.88	4.98	3.86	2.10
1.70V	147	97.0	78.3	45.9	27.6	16.5	10.2	8.34	7.86	4.94	3.82	2.06
1.75V	133	93.0	74.3	44.8	27.1	16.2	10.1	8.28	7.84	4.92	3.78	1.98
1.80V	119	87.0	70.2	43.7	26.7	16.0	10.0	8.22	7.82	4.90	3.72	1.92
1.85V	105	81.0	66.1	42.6	26.2	15.8	10.0	8.16	7.80	4.90	3.66	1.86

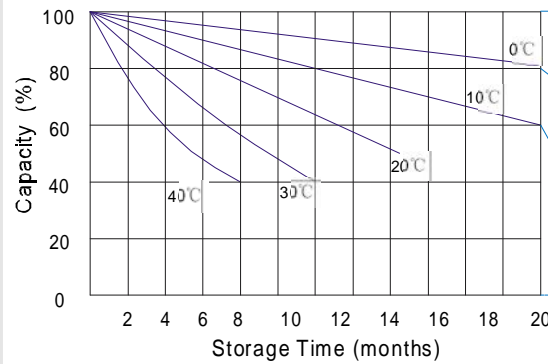
All mentioned values are average values.



Temperature effects curve



Storage characteristic



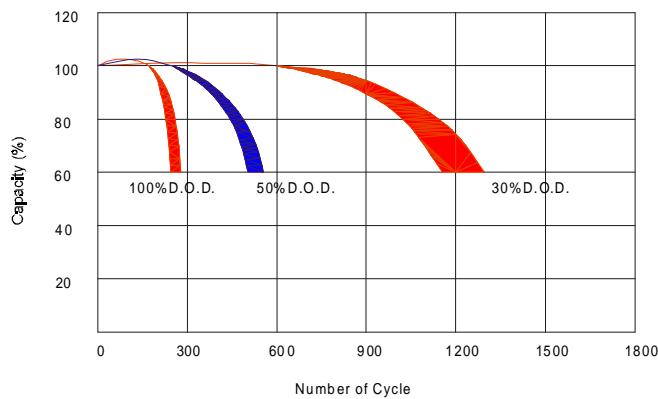
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

Supplementary charge required before use. This supplementary charge will be to recover the capacity and should be made as early as possible.

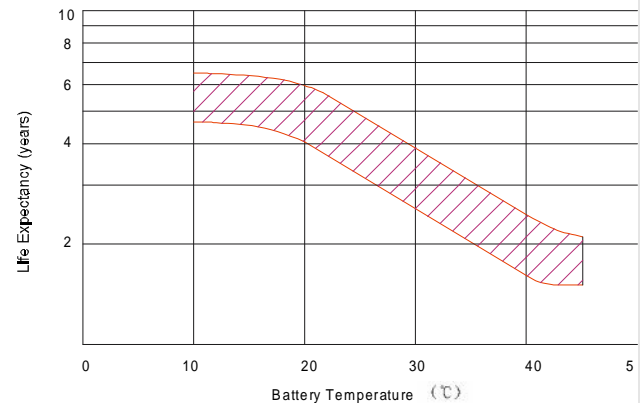
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supplementary charge and storage guidelines

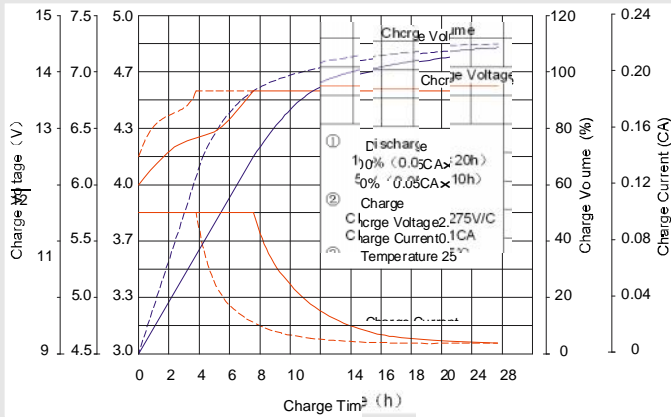
Life characteristics of cyclic use



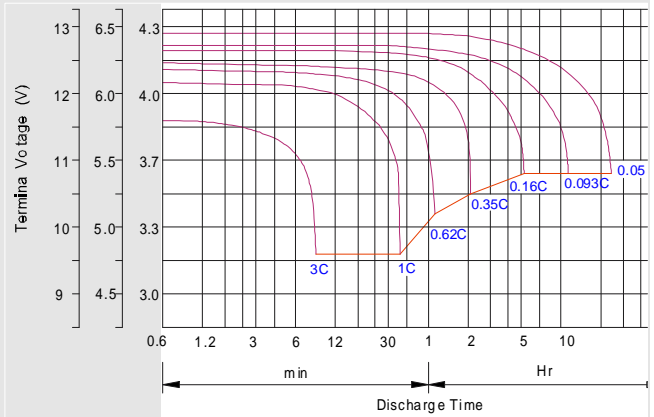
Effect of Temperature on long term float life



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 Volt

Final Discharge Voltage V/cell	1.75V	1.70V	1.60V
Discharge Current (A)	(A) ≤ 0.2C	0.2C < (A) < 1.	(A) ≥ 1.

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

Charging Method:

Constant Voltage	-0.2Cx2h +14.4~15.0V,24h,Max. Current 0.3CA
Constant Current	-0.2Cx2h +0.1CAx12h

Charging Procedures(6V seri

Application	Charge Voltage (V)			Max. Charge Current
	Temperature	Set point	Allowable range	
Cycle Use	25°C	7.35	7.25~7.45	0.3C
Standby	25°C	6.85	6.8~6.9	0.3C

QIANGJING BATTERY CO.,LTD
Mudan Road Xiacheng Town,
Yuetang Distrct,
Xiangtan City, Hunan P.R.China