

## Specification

# 6FM20(12V20Ah)



Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	20Ah@20hour-rate to 1.75V per cell @25°C
Weight	Approx. 5.6 Kg (Tolerance ±3.0%)
Internal Resistance	Approx. 14 mΩ
Terminal	F3(M5)/F13(M5)
Max. Discharge Current	200A (5 sec)
Short Circuit Current	820A
Design Life	6~8 years (Float charging)
Recommended Maximum Charging Current	6.0 A
Reference Capacity	C3 15.5AH C5 17.5AH C10 18.8AH C20 20.1AH
Standby Use Voltage	13.7 V~13.9 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C/Cell
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
Self Discharge	Westar valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charge batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

FM series is a general purpose battery with 6~8 years design life in float service. It meets with IEC, JIS, BS and YDT standards. With advanced AGM valve regulated technology and high purity raw material, the FM series battery maintains high consistency for better performance and reliable standby service life. It is suitable for UPS/EPS, Telecom, power grid, medical equipment, emergency light and security system applications.

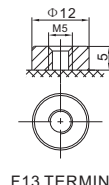
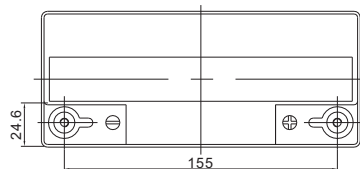
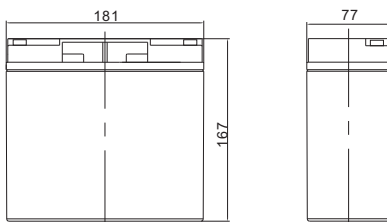


MH60689



ED131130285E

## Dimensions



F13 TERMINAL

Length	181±1.5mm (7.13 inches)
Width	77±1.5mm (3.03 inches)
Height	167±1.5mm (6.57 inches)
Total Height	167±1.5mm (6.57 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Unit: mm

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

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	79.30	51.72	38.15	22.08	12.76	7.527	5.472	4.357	3.678	2.458	2.002	1.041
1.65V	76.43	50.17	37.15	21.59	12.52	7.417	5.399	4.303	3.636	2.433	1.983	1.033
1.70V	72.70	48.15	35.84	20.95	12.21	7.270	5.302	4.231	3.579	2.400	1.957	1.022
1.75V	67.92	45.54	34.13	20.11	11.80	7.076	5.174	4.135	3.504	2.356	1.924	1.007
1.80V	61.88	42.19	31.93	19.03	11.26	6.822	5.004	4.009	3.405	2.298	1.879	0.987
1.85V	54.45	38.01	29.15	17.64	10.57	6.490	4.783	3.844	3.274	2.221	1.820	0.961

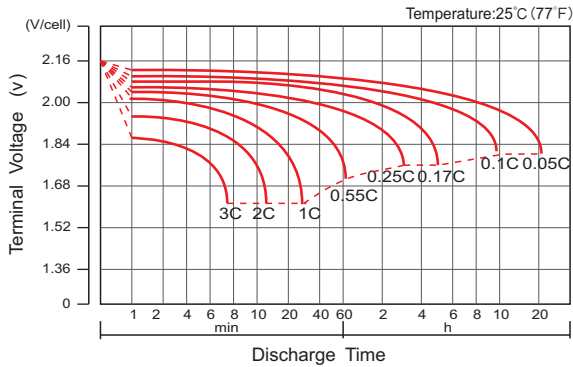
### Constant Power Discharge Characteristics : WPC (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	136.5	89.22	67.70	40.70	24.21	14.48	10.61	8.49	7.20	4.87	3.99	2.08
1.65V	135.0	88.86	67.31	40.40	24.01	14.37	10.53	8.43	7.15	4.84	3.96	2.07
1.70V	129.9	86.23	65.50	39.43	23.50	14.13	10.37	8.31	7.05	4.78	3.92	2.05
1.75V	123.5	83.02	63.28	38.24	22.82	13.82	10.16	8.15	6.93	4.70	3.85	2.02
1.80V	114.5	78.27	60.03	36.53	21.88	13.39	9.87	7.93	6.76	4.59	3.77	1.98
1.85V	102.6	71.77	55.59	34.20	20.68	12.81	9.47	7.63	6.52	4.45	3.66	1.93

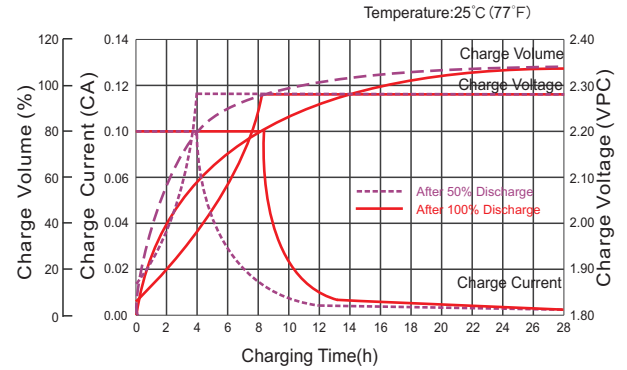
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

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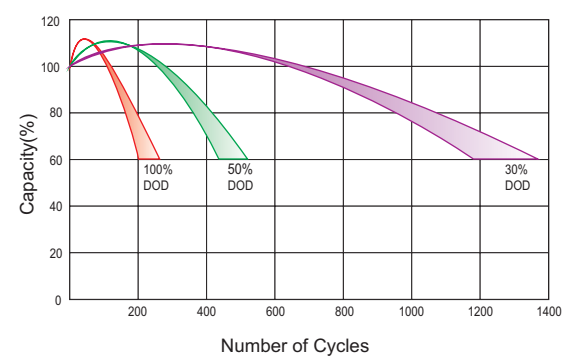
**Discharge Characteristics Curve**



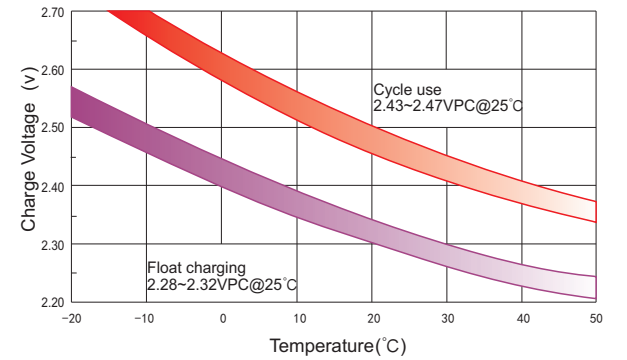
**Charge Characteristic Curve For Standby Use**



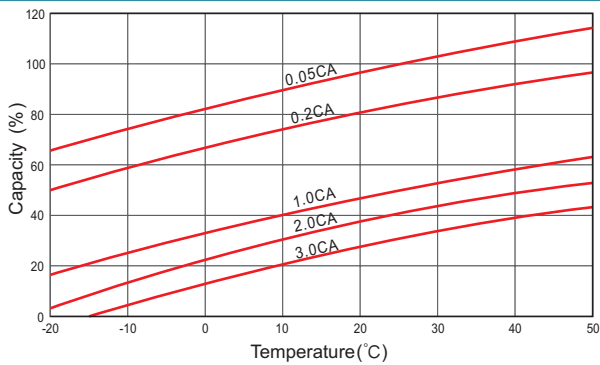
**Cycle Life In Relation To Depth Of Discharge**



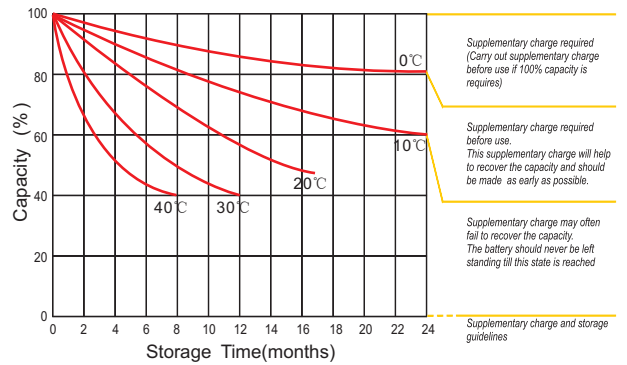
**Relationship Between Charging Voltage And Temperature**



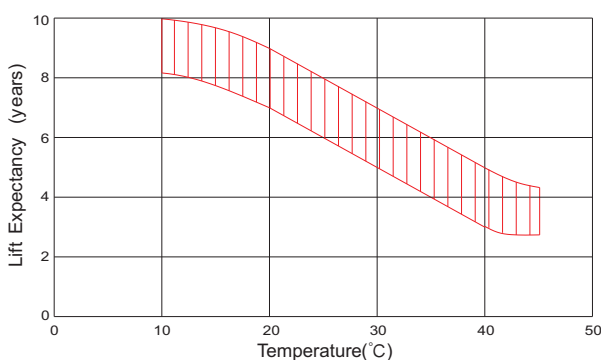
**Temperature Effects On Capacity**



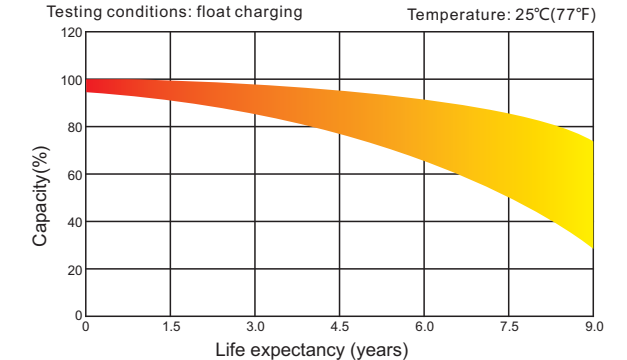
**Storage Characteristics**



**Effect Of Temperature On Long Term Life**



**Life Characteristics Of Standby Use**



(Note) All above information shall be changed without prior notice, Westar reserves the right to explain and update the latest information