

stored energy solutions for a demanding world



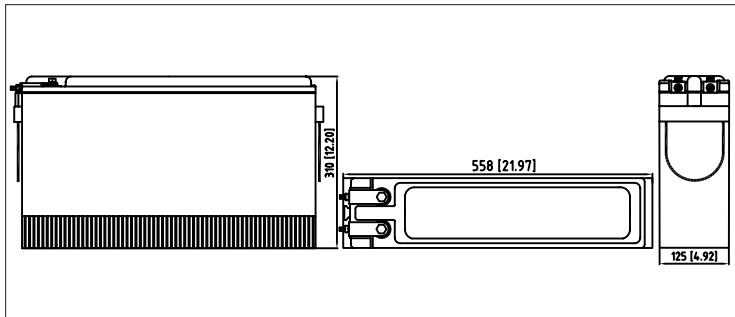
Model: **6-GFM-170F**

MP SERIES

The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS heat seal technology between container and lid and patented post seal structure. The design float life is 12 years at 25°C (77°F).



**Dimensions—mm [inch]**



**Specifications**

<b>Battery Model</b>	<b>6-GFM-170F</b>
Nominal Voltage	12V
Rated Capacity	170Ah (8 hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	55kg
Internal Resistance	Approx 3.22mΩ
Operating Temperature Range	Operation (maximum): -40°C to 50°C(-40°F to 122°F)
	Operation (recommended): 15°C to 25°C(59°F to 77°F)
	Storage: -20°C to 40°C(-4°F to 104°F)
Float Voltage	2.25V/cell@25°C(77°F)
Recommended Maximum Charging Current Limit	42.5A
Equalize and Cycle Service	2.35V~2.40V/cell@25°C(77°F)
Self Discharge	The residual capacity is above 90% after 90 days storage(25°C/77°F)
Terminal	M8 Female with adapter offering an M6 Male connection at the front(M8 optional)
Terminal Hardware Torque	8 ± 1. 0Nm
Container Material	ABS (V0 optional)

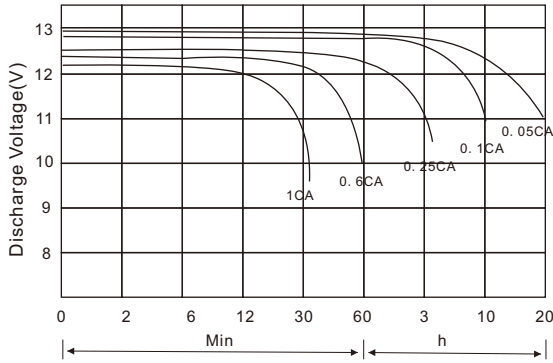
**Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)**

End voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	621	334	202	147	119	68.0	49.3	38.7	32.7	28.1	21.4	17.7	14.9	9.35	7.82
1.67V	584	322	199	146	118	67.6	48.4	38.5	32.5	27.8	21.4	17.5	14.9	9.27	7.75
1.70V	578	316	196	144	117	67.1	48.2	38.3	32.0	27.6	21.3	17.5	14.8	9.25	7.74
1.75V	531	307	194	143	115	65.4	47.6	37.8	31.8	27.4	21.3	17.4	14.8	9.23	7.74
1.80V	476	286	186	138	112	64.8	47.3	37.7	31.1	26.8	21.2	17.2	14.6	9.14	7.72
1.83V	454	262	182	133	107	64.0	45.7	36.0	30.1	25.9	20.7	16.6	13.9	9.12	7.60
1.85V	426	254	170	128	104	61.6	44.5	35.5	29.4	25.3	20.1	16.4	13.8	8.94	7.53

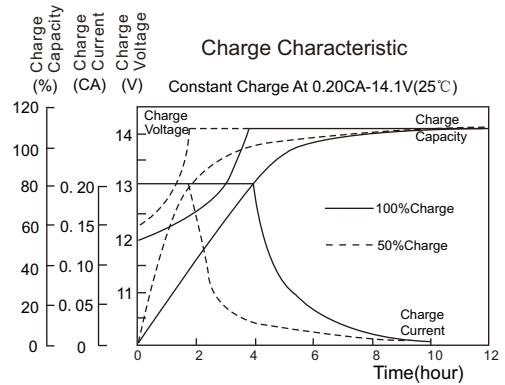
**Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)**

End voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	1038	587	366	275	223	128	93.7	74.3	62.7	54.0	41.8	34.3	28.9	18.5	15.5
1.67V	1000	576	363	273	222	128	92.5	74.2	62.7	53.7	41.6	34.1	28.9	18.5	15.5
1.70V	994	570	363	273	221	127	92.5	73.9	61.7	53.3	41.3	33.8	28.6	18.4	15.5
1.75V	928	565	361	273	218	127	91.5	73.8	61.7	53.1	40.9	33.8	28.6	18.4	15.5
1.80V	851	534	353	266	217	126	91.3	73.6	60.7	52.6	40.8	33.6	28.5	18.4	15.5
1.83V	813	490	348	258	208	125	89.2	70.9	59.4	51.0	40.4	32.8	27.7	18.3	15.3
1.85V	760	478	324	248	202	121	86.7	70.0	57.9	50.0	39.2	32.5	27.4	18.0	15.2

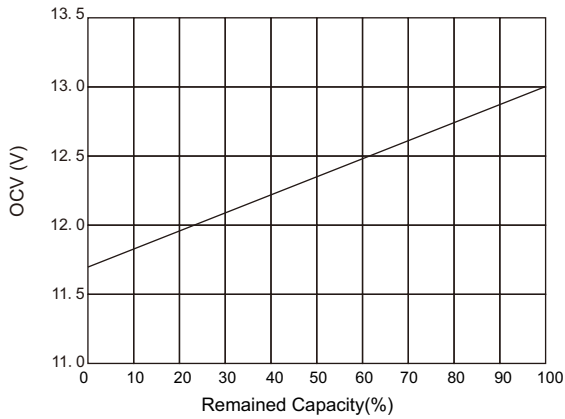
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



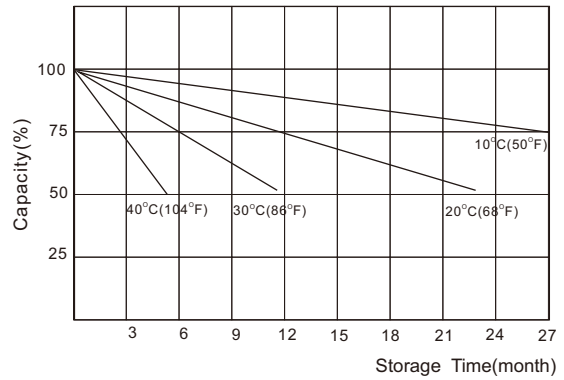
Battery Voltage Vs. Charge Time



Relationship of OCV Vs. State of Charge



Capacity Retention Characteristic



**Charging Procedures**

Application	Charge Voltage (V/Cell)			Max. Charge Current
	Temperature	Set Point	Allowable Range	
Cycle	25°C	2.40	2.35~2.40	0.25C
Standby	25°C	2.25	2.23~2.27	

**Discharge Current VS. Discharge Voltage**

Final Discharge Voltage V/Cell	1.80	1.70	1.55	1.30
Discharge Current (A)	0.2C ≥ (A)	0.2C < (A) < 0.5C	0.5C < (A) < 1.0C	(A) > 1.0C

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