

stored energy solutions for a demanding world

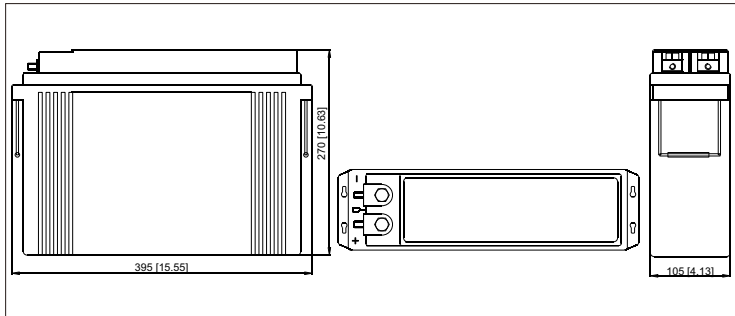


Model: 6-GFM-85F

MP SERIES

The products are used as standby power for communication, power, military and broadcast and television system. They possess precise ABS glue 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

Battery Model	6-GFM-85F
Nominal Voltage	12V
Rated Capacity	85Ah (10hour rate) to 1.80V/cell @25°C(77°F)
Typical Weight	28kg
Internal Resistance	Approx 6.73mΩ
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	21.25A
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	M6 Female
Terminal Hardware Torque	8 ± 1.0Nm
Container Material	ABS (V0 optional)

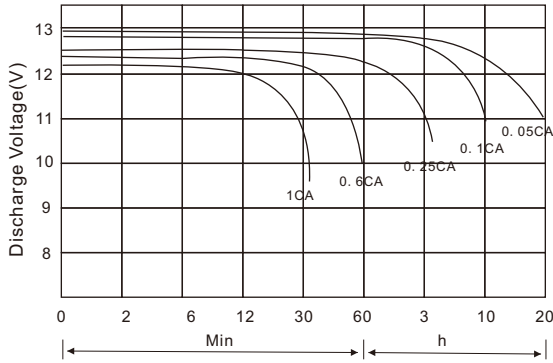
Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

End voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	314	169	102	74.2	60.0	34.4	24.9	19.6	16.5	14.2	10.9	8.96	7.55	4.73	3.95
1.67V	295	163	101	73.6	59.6	34.2	24.5	19.5	16.4	14.1	10.8	8.87	7.54	4.69	3.92
1.70V	292	160	99.2	73.1	59.2	33.9	24.4	19.4	16.2	14.0	10.8	8.83	7.47	4.68	3.92
1.75V	269	155	98.3	72.6	58.3	33.1	24.1	19.1	16.1	13.8	10.7	8.78	7.47	4.67	3.91
1.80V	241	145	94.1	69.6	56.8	32.8	23.9	19.1	15.8	13.6	10.6	8.70	7.40	4.62	3.91
1.83V	230	132	92.3	67.3	54.3	32.4	23.1	18.2	15.2	13.1	10.3	8.38	7.04	4.61	3.84
1.85V	215	128	85.8	64.6	52.6	31.2	22.5	18.0	14.9	12.8	10.0	8.31	6.96	4.52	3.81

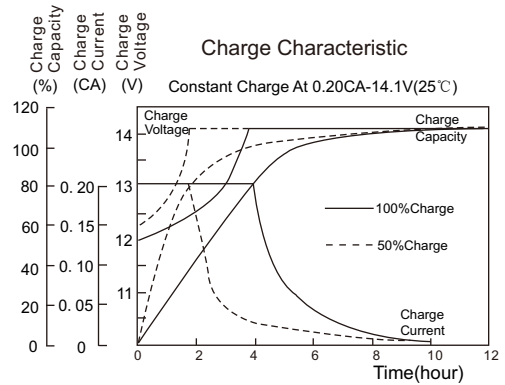
Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

End voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	525	297	185	139	113	64.9	47.4	37.6	31.7	27.3	21.1	17.4	14.6	9.37	7.85
1.67V	506	291	184	138	112	64.7	46.8	37.5	31.7	27.1	21.0	17.3	14.6	9.34	7.84
1.70V	503	288	183	138	112	64.5	46.8	37.4	31.2	26.9	20.9	17.1	14.5	9.31	7.83
1.75V	475	286	183	138	110	64.1	46.3	37.3	31.2	26.9	20.7	17.1	14.5	9.29	7.83
1.80V	436	270	178	135	110	63.9	46.2	37.2	30.7	26.6	20.6	17.0	14.4	9.29	7.82
1.83V	423	248	176	131	105	63.1	45.1	35.9	30.0	25.8	20.5	16.6	14.0	9.27	7.76
1.85V	400	242	164	125	102	61.1	43.9	35.4	29.3	25.3	19.8	16.5	13.9	9.09	7.70

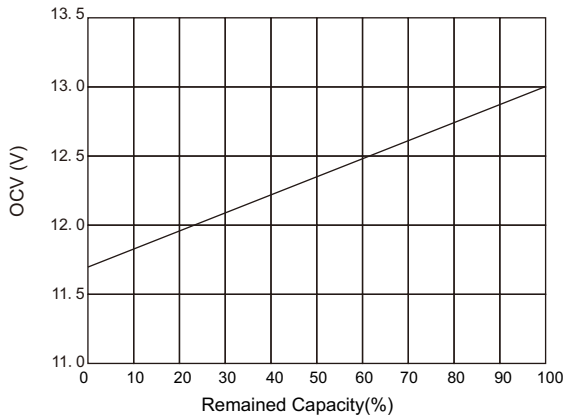
Terminal Voltage(V) Vs. Discharge Time (25°C, 77°F)



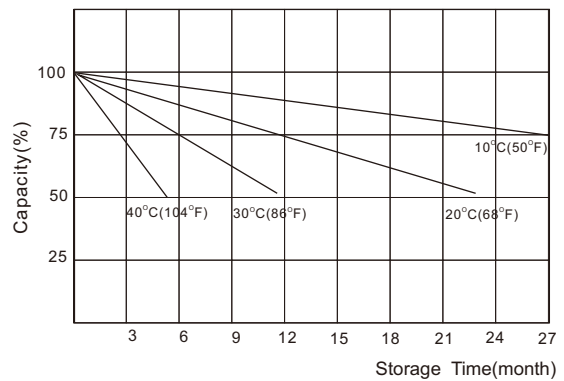
Battery Voltage Vs. Charge Time



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	2.35~2.45	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