



Marstech

GFM Series- Battery

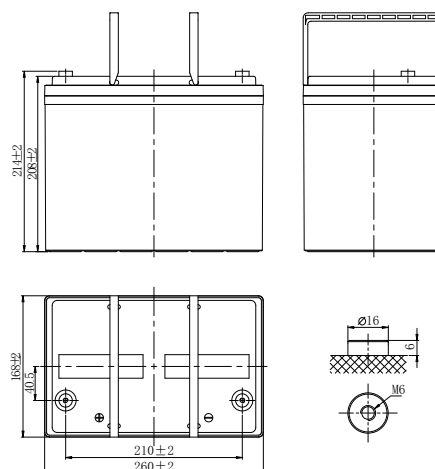
6GFM-80L(12V80Ah)

Specifications of 6GFM-80L

Rated Voltage		12V
Nominal Capacity (10HR)		80Ah
Dimension	Length	260±2mm (10.20 inches)
	Width	168±2mm(6.61 inches)
	Container Height	208±2mm (8.19 inches)
	Total Height	214±2mm (8.43 inches)
Approx Weight		24.0kg (52.9lbs)
Terminal		T6
Container Material		ABS
Rated Capacity	83.2 Ah	(4.16A, 20hr, 1.80V/cell, 25°C/77°F)
	80.0 Ah	(8.0A, 10hr, 1.80V/cell, 25°C/77°F)
	69.0 Ah	(13.8A, 5hr, 1.75V/cell, 25°C/77°F)
	62.4 Ah	(20.8A, 3hr, 1.75V/cell, 25°C/77°F)
	48.8 Ah	(48.8A, 1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current		960A (5s)
Internal Resistance(25°C)		Approx 6mΩ
Operating Temp. Range	Discharge	-15 ~ 50°C (5 ~ 122°F)
	Charge	0 ~ 40°C(32 ~ 104°F)
	Storage	-15 ~ 40°C(5 ~ 104°F)
Nominal Operating Temp. Range		25±3°C(77±5°F)
Standby Use	No limit on Initial Charging Current Voltage	
	13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Cycle Use	Initial Charging Current less than 24.0A.Voltage	
	14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Effect of temp. to Capacity	103%	
	40°C (104°F)25°C (77°F)0°C (32°F)	
	100%	
Self Discharge	86%	
	Marstech series batteries may be stored for up to 6 months	
	at 25°C(77°F) and then a freshening charge is required.	
	For higher temperatures the time interval will be shorter	



Layout



Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	107.6	91.5	76.6	60.9	46.1	37.7	24.0	19.0	15.5	12.5	10.9	8.84	7.55	4.12
1.80V/cell	137.5	110.6	90.5	71.8	53.6	42.2	26.2	20.4	16.6	13.4	11.7	9.38	8.00	4.16
1.75V/cell	151.1	120.8	97.4	74.6	55.6	44.2	27.2	20.8	16.9	13.8	12.0	9.54	8.08	4.20
1.70V/cell	164.7	129.0	102.3	77.6	57.8	45.6	28.3	21.4	17.4	14.4	12.2	9.67	8.16	4.28
1.65V/cell	177.8	137.2	108.7	81.9	59.3	47.1	29.1	22.3	18.0	14.5	12.5	9.82	8.33	4.34
1.60V/cell	193.0	146.7	115.8	86.4	61.8	48.8	30.0	23.0	18.5	15.0	12.8	9.92	8.42	4.36

Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	198.8	170.8	144.3	116.0	88.5	72.7	46.7	37.0	30.3	24.5	21.4	17.4	14.9	8.16
1.80V/cell	251.1	203.6	168.1	134.8	102.2	81.1	50.6	39.6	32.2	26.2	22.9	18.5	15.8	8.23
1.75V/cell	271.5	219.7	179.1	138.8	105.0	84.4	52.3	40.2	32.8	26.8	23.4	18.7	15.9	8.30
1.70V/cell	289.2	231.3	186.8	143.6	108.8	86.8	54.2	41.2	33.6	27.4	23.9	19.0	16.1	8.45
1.65V/cell	309.2	244.0	197.0	150.3	110.5	89.1	55.4	42.8	34.7	28.1	24.3	19.2	16.4	8.55
1.60V/cell	328.1	256.7	207.5	157.5	114.6	91.7	57.0	43.9	35.6	28.9	24.8	19.4	16.5	8.58



GFM Series-Battery

6GFM-80L(12V80Ah)

Applications

- Telecommunications
- UPS system
- Wind power system
- Engine starting
- Wheelchair, Floor cleaning machines, Golf trolley, Boats

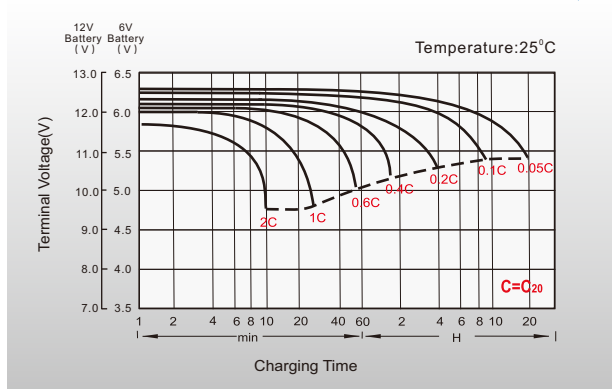
General Features

- Battery design life up to 12 years
- Special plate design guarantees battery floating life more than 1800 times
- High thermal capacity reduce the risk of thermal out of control and drying hard, and the battery can be used in bad environment
- Little water losing, and no electrolyte stratification phenomenon

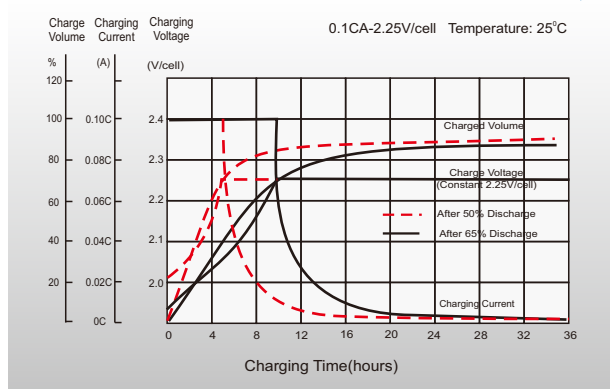
Standards

- IEC 60896 Certified
- Classified as "Long Life"
- ISO 9001 Certified
- Manufactured in standard IATF16949,

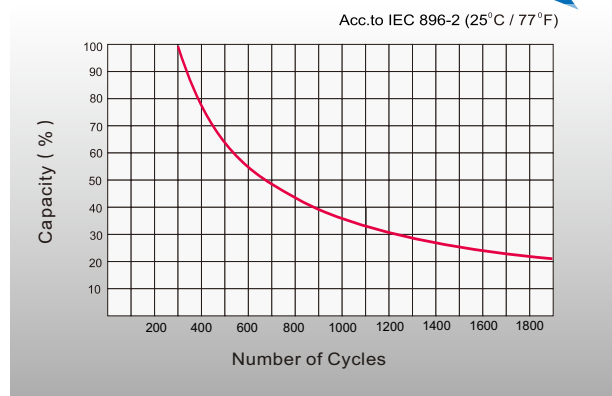
Discharge Characteristics



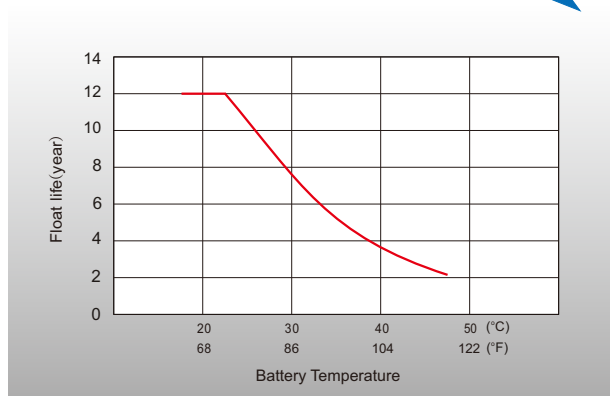
Float Charging Characteristics



Cycle Life in Relation to Depth of Discharge



Effect of Temperature on Long Term Float Life



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