

GFMHR Series

High-rate Valve-regulated Lead Acid Battery

GFMHR-680W



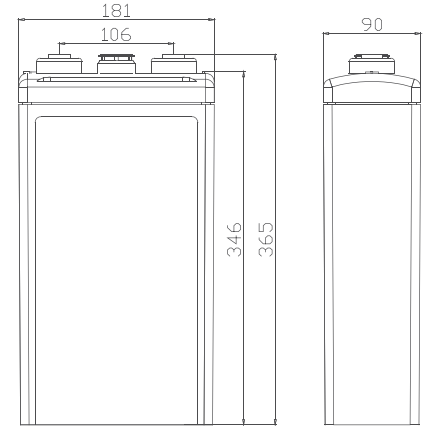
Main Applications

- ▣ IDC and UPS
- ▣ High power & large current application scenarios
- ▣ Backup power for high precision device
- ▣ Emergency lighting, navigation lights

Benefits

- ▣ Specifically designed for high power & large current application scenarios with superior high rate, short term power
- ▣ Designed life of 12 years
- ▣ Low annual operating cost
- ▣ High security, reliability and stability

Dimensions



Technical Parameters

Nominal Voltage	2 V
Capacity	220 Ah @ 10hr to 1.80 V per cell @ 25°C(77°F)
Weight	13.1 kg (28.9 lbs)
Dimensions	Length: 90 mm (3.54 in) Width: 181 mm (7.13 in) Height: 346 mm (13.62 in) Total height: 365 mm (14.37 in)
Internal Resistance (full charged)	0.6 mΩ
Short-circuit Current	4200 A
Self Discharge @25°C(77°F)	Less than 8% after 90 days storage
Operating Temperature Range	Discharge: -40°C ~ 50°C (-40°F ~ 122°F) Charge: -20°C ~ 45°C (-4°F ~ 113°F) Storage: -20°C ~ 40°C (-4°F ~ 104°F)
Recommended Operating Temperature	15°C ~ 25°C (59°F ~ 77°F)
Recommended Charging Current	33 A
Charging Voltage @25°C(77°F)	Float: 2.25 V/cell Equalize: 2.35 V/cell
Terminal	M8
Container Materials	ABS/ABS V0 (Optional)
Capacity Affected by Temperature (C ₁₀)	105% @ 40°C (104°F) 85% @ 0°C (32°F) 60% @ -20°C (-4°F)
Design life @25°C (77°F)	12 years

Certification

- ISO9001
- ISO14001
- GB/T 28001

Technical Features

- ▣ Lower internal resistance and voltage drop, suited for high rate discharge applications and high efficient UPS
- ▣ Lower self-discharge rate, better charge acceptability and higher sealing reaction efficiency
- ▣ Exquisite craftsmanship and good coherence of internal resistance, capacity

GFMHR Series

High-rate Valve-regulated Lead Acid Battery

GFMHR-680W



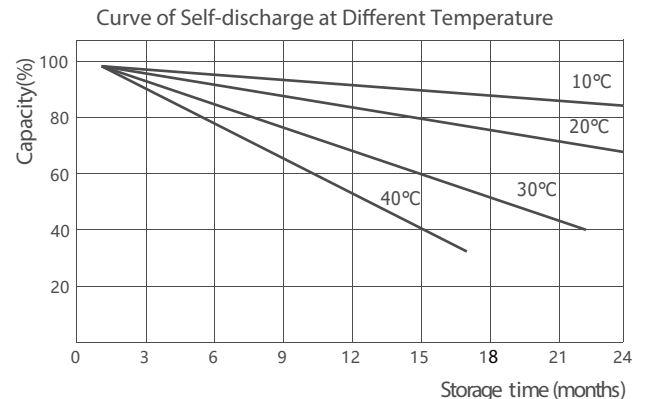
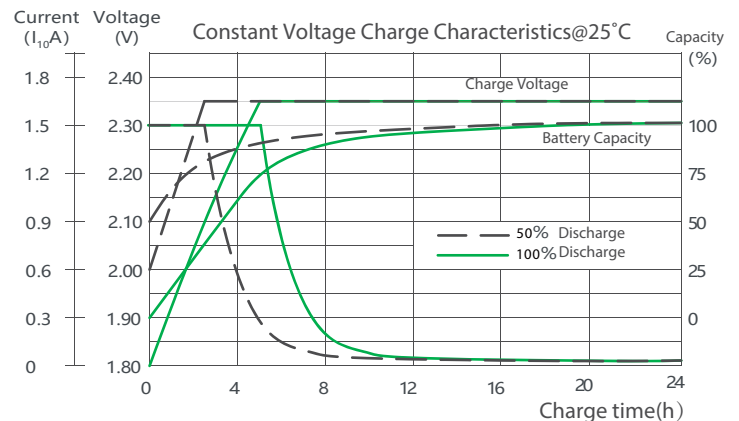
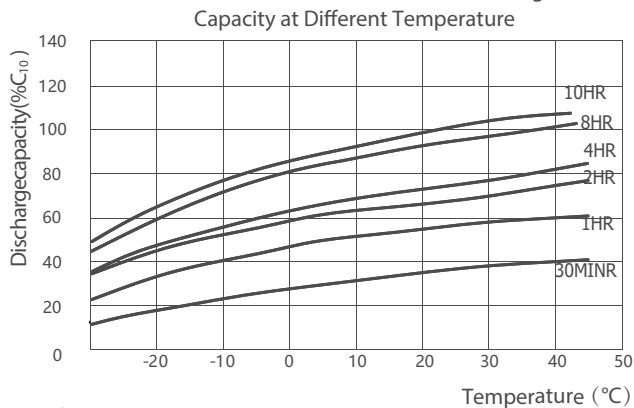
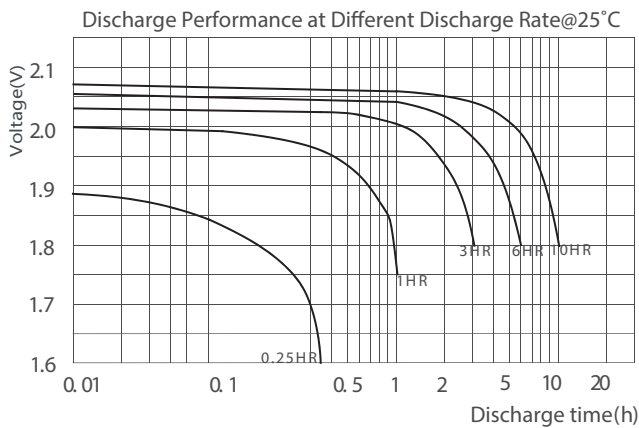
Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	5min	10min	15min	20min	30min	1h	2h	3h	4h	5h	6h	8h	10h
1.60V	598	496	419	334	259	150	--	--	--	--	--	--	--
1.67V	565	458	388	319	250	146	89.8	59.8	50.1	42.4	--	--	--
1.70V	542	436	365	305	243	142	88.2	59.0	49.1	42.0	35.8	28.0	--
1.75V	458	397	334	279	235	137	85.6	57.9	48.6	41.8	35.3	27.7	22.7
1.80V	414	336	296	245	206	123	83.0	56.8	47.8	41.5	34.9	27.5	22.2
1.85V	335	276	247	200	172	96	79.1	52.9	44.2	39.4	33.6	26.4	21.8

Constant Power Discharge Characteristics Unit: W/cell (25°C, 77°F)

F.V/Time	5min	10min	15min	20min	30min	1h	2h	3h	4h	5h	6h	8h	10h
1.60V	980	860	708	583	451	274	--	--	--	--	--	--	--
1.67V	941	830	680	565	443	269	160	112.0	94.5	82.0	--	--	--
1.70V	873	796	653	535	439	263	158	110.7	92.9	81.5	69.8	54.8	--
1.75V	757	735	613	516	432	255	154	108.5	92.0	81.0	68.8	54.5	44.4
1.80V	708	616	550	452	385	230	151	107.0	90.8	80.8	68.4	54.0	43.1
1.85V	602	533	468	378	327	187	149	103.8	87.6	79.9	68.2	53.6	42.2

Performance Curve



*Declaration:

This information is generally descriptive only and is not intended to make or imply any representation, guarantee or warranty with respect to any cells and batteries. Cell and battery designs/specifications are subject to modification without notice. Contact CHINASHOTO for the latest information.

Welcome to Visit : www.chinashoto.com