

# GFMHR-LW Series

## High-rate Valve-regulated Lead Acid Battery

### GFMHR-1300W



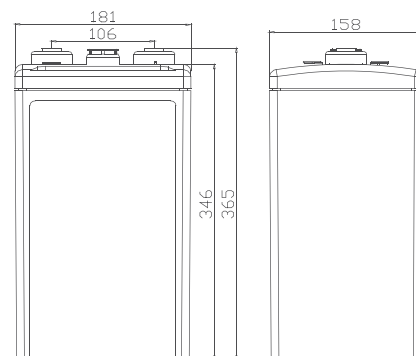
### Main Applications

- ▣ 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	450 Ah @ 10hr to 1.80 V per cell @ 25°C(77°F)
Weight	24.1 kg (53.2 lbs)
Dimensions	Length: 181 mm (6.22 in) Width: 181 mm (7.13 in) Height: 346 mm (13.62 in) Total height: 365 mm (14.37 in)
Internal Resistance (full charged)	0.35 mΩ
Short-circuit Current	8000 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	68A
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 <sub>10</sub> )	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: 2008  
(NO.03015Q10076R4M)
- ☑ ISO14001: 2004  
(NO.03016E10080R2L)
- ☑ GB/T 28001-2011  
(NO.03014S10092R2M)

### 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

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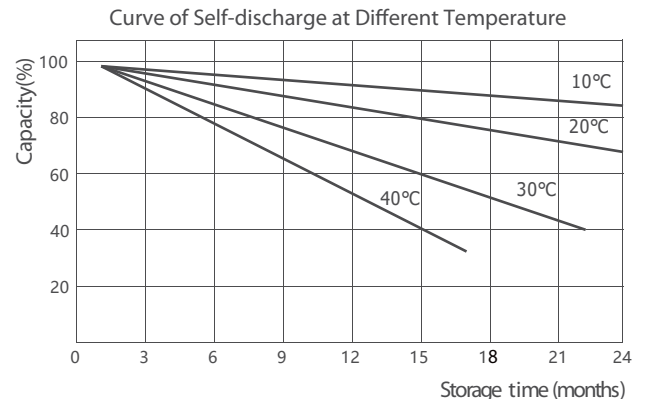
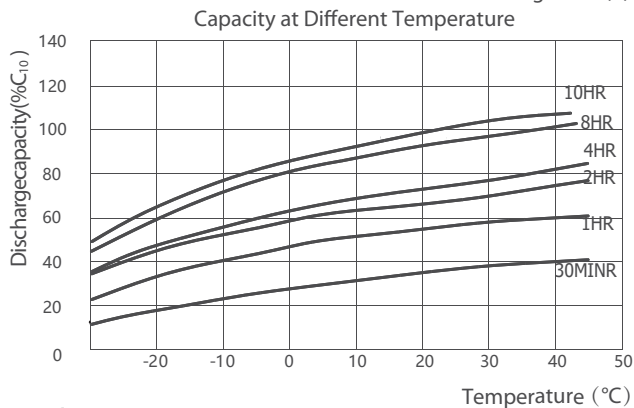
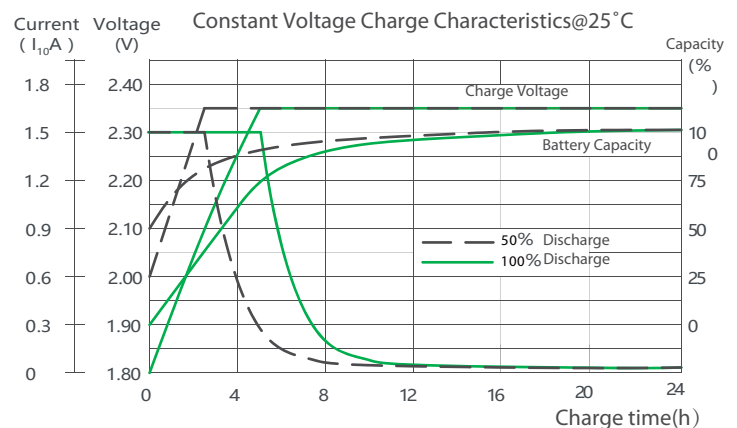
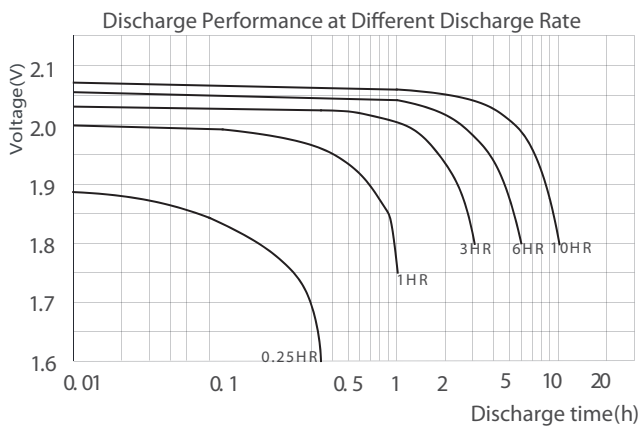
### Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	5min	10min	15min	20min	30min	1h	2h	3h	4h	5h	6h	8h	10h
1.60V	1140	937	791	643	498	288	--	--	--	--	--	--	--
1.67V	1074	875	741	622	485	280	164	122.3	97.6	82.5	--	--	--
1.70V	1028	831	696	592	471	274	161	120.4	95.6	81.6	71.0	56.1	--
1.75V	870	759	637	542	457	263	156	118.1	94.7	81.1	69.9	55.6	46.1
1.80V	785	640	563	475	401	235	152	115.8	93.0	80.8	69.2	54.9	45.2
1.85V	634	524	469	388	334	184	144	108.1	85.9	76.4	66.6	52.9	44.7

### 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	1883	1651	1360	1141	883	531	--	--	--	--	--	--	--
1.67V	1799	1586	1300	1100	870	522	308	231.4	185.9	162.1	--	--	--
1.70V	1697	1546	1269	1060	867	517	305	230.4	184.1	161.5	140.9	111.7	--
1.75V	1468	1427	1189	1022	855	500	300	225.8	182.2	160.6	138.9	110.8	91.2
1.80V	1377	1262	1070	895	762	450	293	223.0	180.4	160.2	138.4	110.2	89.0
1.85V	1169	1073	909	749	649	366	289	216.2	173.6	158.2	137.9	109.3	88.2

### Performance Curve



#### \*Declaration:

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