

GFM

Series VRLA Battery

GFM-1600



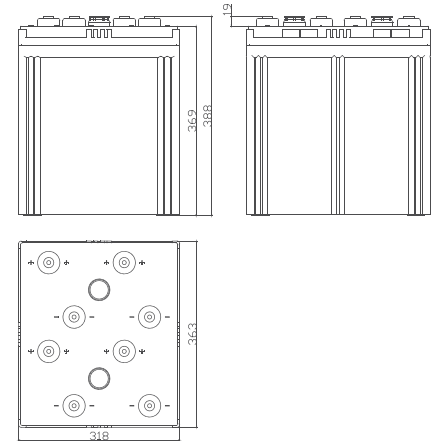
Main Applications

- ▶ Backup power for telecom and signal system
- ▶ Backup power for electric system and nuclear plants
- ▶ Storage for solar, wind and hydroelectricity energy
- ▶ Backup power for military and maritime equipment
- ▶ Backup power for UPS, emergency lighting

Benefits

- ▶ Reduce operational cost
- ▶ Excellent deep cycling performance
- ▶ Reduce CO₂ emission
- ▶ Long life

Dimensions



Technical Parameters

Nominal Voltage	2 V
Capacity	1600 Ah @ 10hr to 1.80 V @ 25°C(77°F)
Weight	98 kg (216.05 lbs)
Dimensions	Length: 318 mm (12.52 in) Width: 363 mm (3.54 in) Height: 369 mm (14.53 in) Total height: 388 mm (15.28 in)
Internal Resistance (full charged)	0.20 mΩ
Short-circuit Current	15020 A
Self Discharge @25°C(77°F)	Less than 3% after 30 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	240 A
Charging Voltage @25°C(77°F)	Float: 2.23 V/cell Equalize: 2.35 V/cell
Terminal	M8
Container Materials	ABS/ABS V0 (Optional)
Capacity Affected by Temperature(C ₁₀)	106% @ 40°C(104°F) 85% @ 0°C(32°F) 60% @ -20°C(-4°F)
Design life @25°C(77°F)	15 years

Certification

- ISO 9001: 2008
- ISO 14001: 2004
- GB/T 28001- 2011
- UL
- CE

Technical Features

- ▶ Best performance for charge acceptability
- ▶ Excellent capacity retention rate
- ▶ Excellent capacity recovery performance
- ▶ Long life design for cyclic or float application



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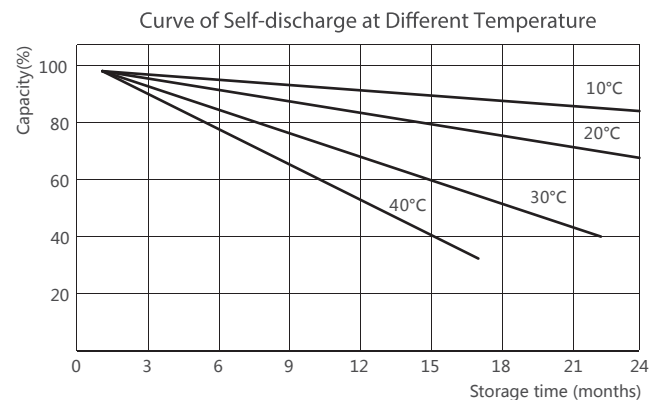
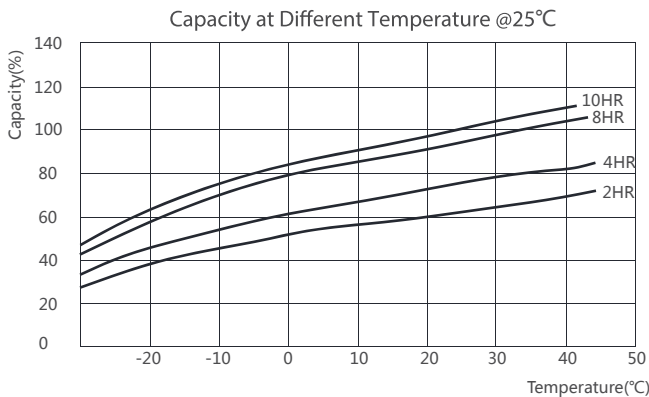
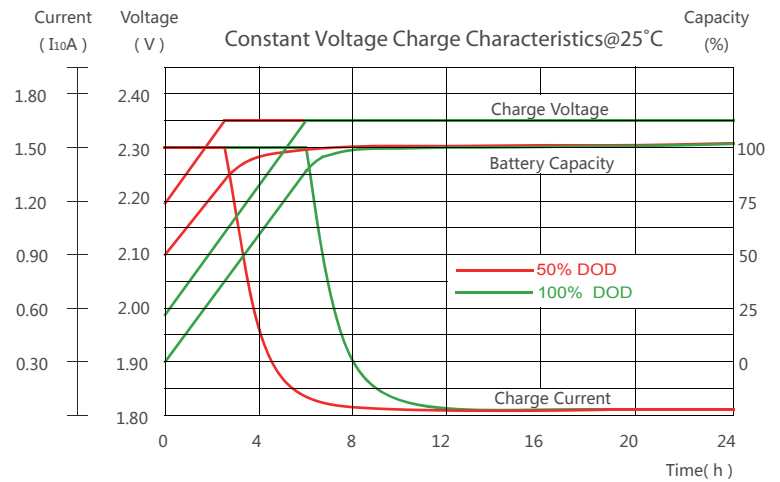
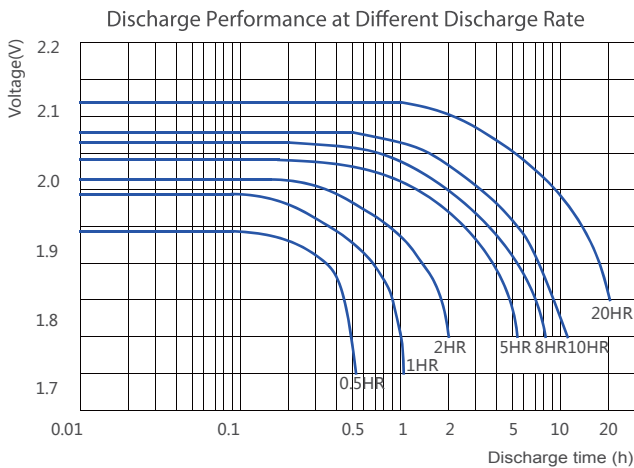
Constant Current Discharge Characteristics Unit: A (25°C,77°F)

F.V/Time	1h	1.5h	2h	3h	4h	5h	6h	8h	10h
1.90V	624	573	461	344	290	238	205	175	143
1.85V	691	651	493	379	311	259	221	186	154
1.80V	825	670	523	403	322	273	241	191	161
1.75V	882	702	548	413	329	279	245	195	163
1.70V	933	733	565	422	334	283	248	197	164
1.65V	973	747	578	426	338	284	250	198	165

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

F.V/Time	1h	1.5h	2h	3h	4h	5h	6h	8h	10h
1.90V	1220	1131	913	692	586	481	414	355	290
1.85V	1356	1268	966	753	621	518	443	374	312
1.80V	1594	1295	1016	793	641	546	482	384	322
1.75V	1673	1346	1056	809	652	554	490	390	326
1.70V	1758	1394	1083	822	661	561	495	393	329
1.65V	1806	1407	1100	826	664	564	498	394	330

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 HELIOS for the latest information.

