

# GFMJ(OPzV)

VRLA Gel Battery  
GFMJ-420



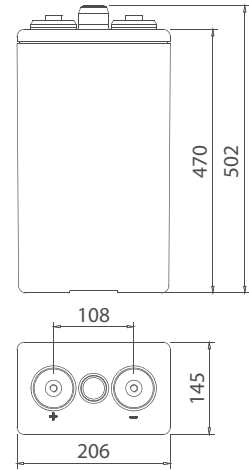
## Main Applications

- Deep cycling energy storage application
- Solar & wind energy storage system
- Off-grid & bad-grid hybrid sites
- Floating applications for telecom sites

## Benefits

- Long life design for cyclic or float application
- Excellent charge acceptability and deep cycling performance
- Excellent over discharge recovery capability
- Superior charging & discharging ability in low current
- Extend service life under high temperature

## Dimensions



## Technical Parameters

Nominal Voltage	2 V
Capacity	420 Ah @10hr to 1.80 V @ 25°C(77°F)
Weight	32.5kg (71.65 lbs)
Dimensions	Length:145 mm(5.71 in) Width:206 mm(8.11 in) Height:470 mm(18.50 in) Total height:502 mm(19.76 in)
Internal Resistance (full charged)	0.47 mΩ @ 25°C(77°F)
Short-circuit Current	4750 A
Self Discharge @25°C(77°F)	Less than 30% after 180 days storage
Operating Temperature Range	Discharge: -20°C ~ 50°C(-4°F ~ 122°F) Charge: -20°C ~ 50°C(-4°F ~ 122°F) Storage: 5°C ~ 40°C(41°F ~ 104°F)
Recommended Operating Temperature	20°C ~ 25°C (68°F ~ 77°F)
Recommended Charging Current	63 A
Charging Voltage @25°C(77°F)	Float: 2.23 V/cell Equalize: 2.35 V/cell
Terminal	M10
Container Materials	ABS/ABS V0 (Optional)
Capacity Affected by Temperature(C <sub>10</sub> )	105% @ 40°C(104°F) 74% @ 0°C(32°F) 50% @ -20°C(-40°F)
Design life @25°C(77°F)	20 years

## Certification

- ISO 9001
- ISO 14001
- GB/T 28001
- UL
- CE

## Technical Features

- According to DIN-40742 standards, design life of 20 years
- Tubular plate & special gel electrolyte, which can prevent active material falling and avoid acid stratification
- High stability and security, millions of batteries are in service
- Higher thermal capacity & better thermal diffusivity

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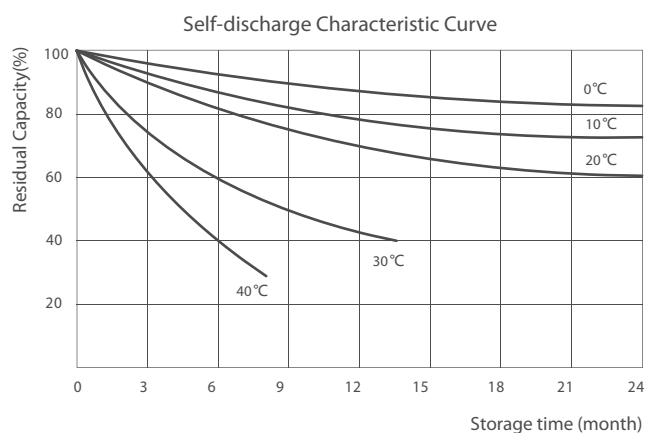
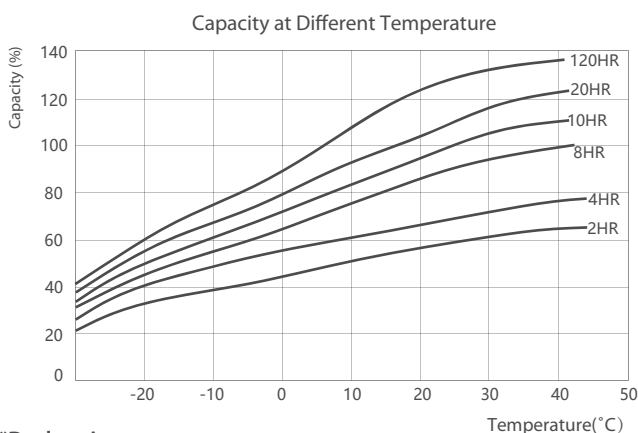
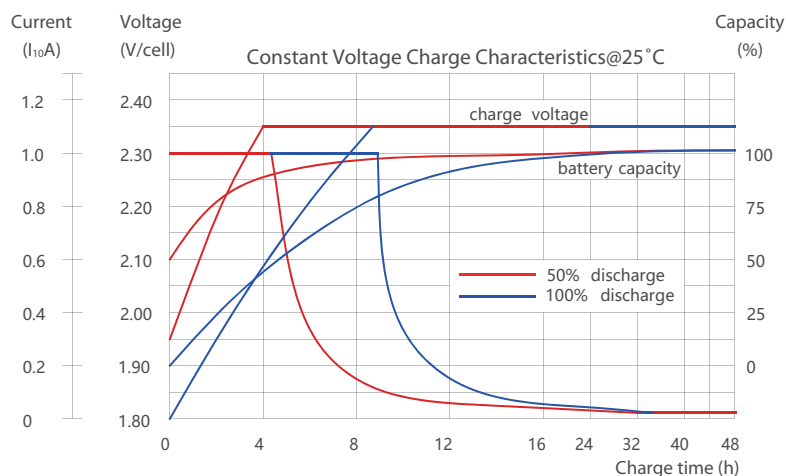
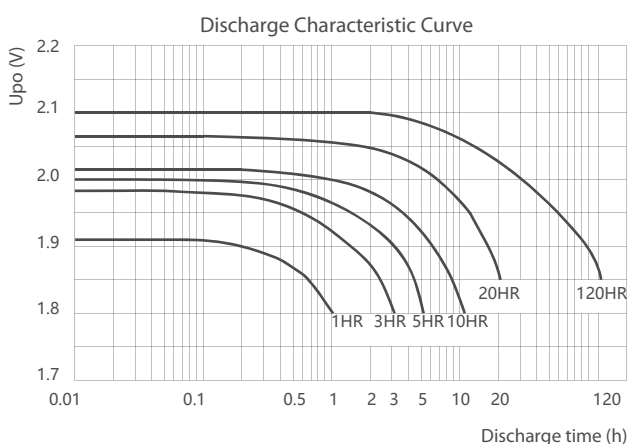
## Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	12hr	20hr	100hr	120hr
1.80V	200	140	105	85	73	64	51	43	37.8	23.1	--	--
1.83V	197	135	102	84	72	63	50	42	36.4	22.6	--	--
1.85V	192	132	99	81	70	61	47	41	35	22	5.4	4.5
1.87V	180	122	97	79.5	68	59.5	45	39	33.5	21.5	5.2	4.3
1.90V	165	112	90	75	64	55	42	36	32	20.5	4.7	4.1

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

F.V/Time	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	12hr	20hr	100hr	120hr
1.80V	369	257	205	167	143	124	96	80	70	45	--	--
1.83V	372	252	200	162	141	123	94	79	68	44	--	--
1.85V	364	248	195	155	137	120	90	78	66	43	10.5	9
1.87V	350	235	190	151	132	118	87	75	64	42	10	8.5
1.90V	315	217	171	142	122	108	81	70	62	40	9	8

## Performance Curve



### \*Declaration:

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