

# GFMJ(OPzV)

VRLA Gel Battery  
GFMJ-490



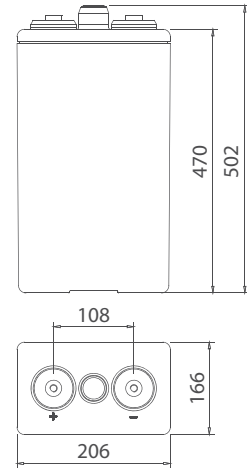
## Main Applications

- 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	490 Ah @10hr to 1.80V @ 25°C(77°F)
Weight	37.5 kg (82.67 lbs)
Dimensions	Length:166 mm(6.54 in) Width:206 mm(8.11 in) Height:470 mm(18.50 in) Total height:502 mm(19.76 in)
Internal Resistance (full charged)	0.44 mΩ @ 25°C(77°F)
Short-circuit Current	5195 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	73.5 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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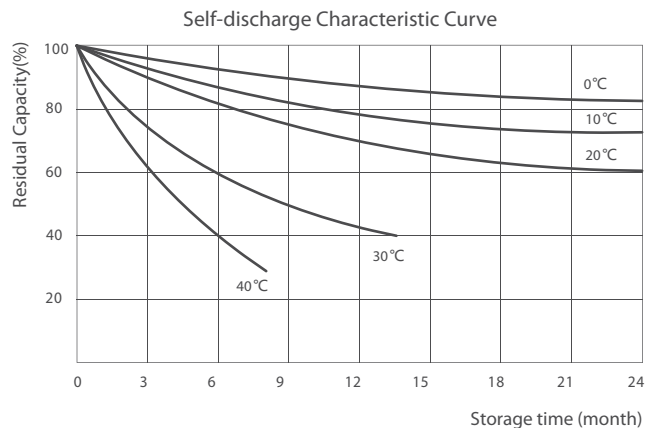
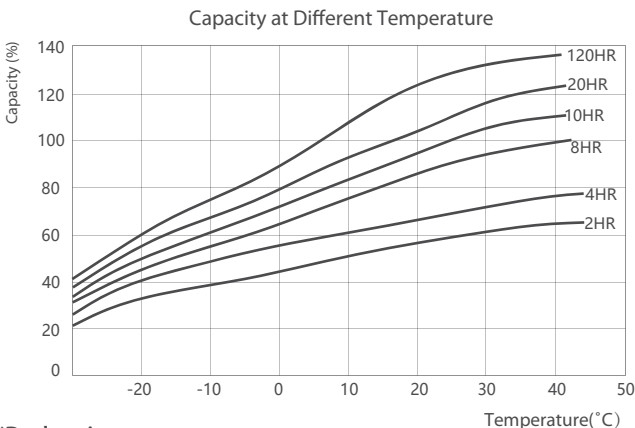
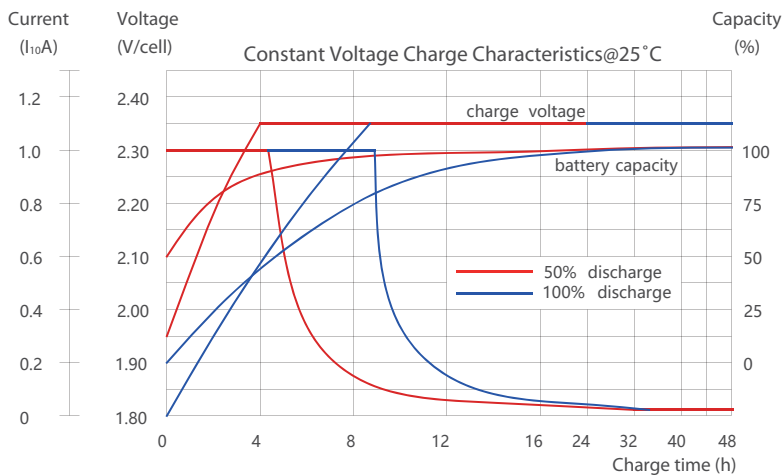
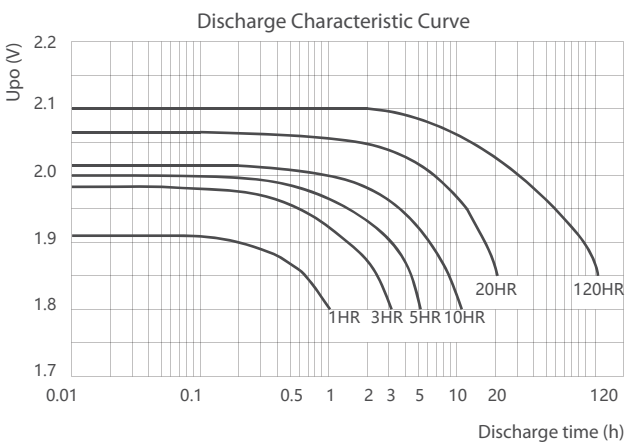
## Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

F.V/Time	1hr	2hr	3hr	4hr	5hr	6hr	8hr	10hr	12hr	20hr	100hr	120hr
1.80V	237	159	125	96	81	72	58	49	43	27	--	--
1.83V	230	155	115	94	80	70	57	48	42.5	26.5	--	--
1.85V	220	150	112	90	78	68	55	47	42	26	6.4	5.4
1.87V	210	146	108	88	75	65	53	45	40	25	6.1	5.1
1.90V	195	130	105	86	73	62	49	41.5	38	24	5.7	4.8

## 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	440	300	240	195	165	145	113	95	83	53	--	--
1.83V	435	295	238	190	162	143	110	92	81	52	--	--
1.85V	420	290	232	185	159	140	106	90	79	51	12	10.5
1.87V	405	280	225	180	155	138	102	88	77	50	11.5	10
1.90V	375	255	202	170	145	127	95	82	74	47	11	9.5

## Performance Curve



### \*Declaration:

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