

# FMJ Series

## 6FMJ-120 12V120Ah

FMJ series gel batteries utilize advanced battery technology. FMJ has good cyclic performance and high reliability. It is the economical choice for solar photovoltaic street lights, garden and lawn lamps, traffic lights, warning lights and other energy storage systems.



### Benefits

- Long life according to EUROBAT Classification
- High discharge performance
- High gas recombination efficiency
- Maximum charge efficiency
- GEL state electrolyte prevents leakage and layering
- Low resistance PVC or PF micro-porous separator ensure low self-discharge rate
- Easy installation and handling

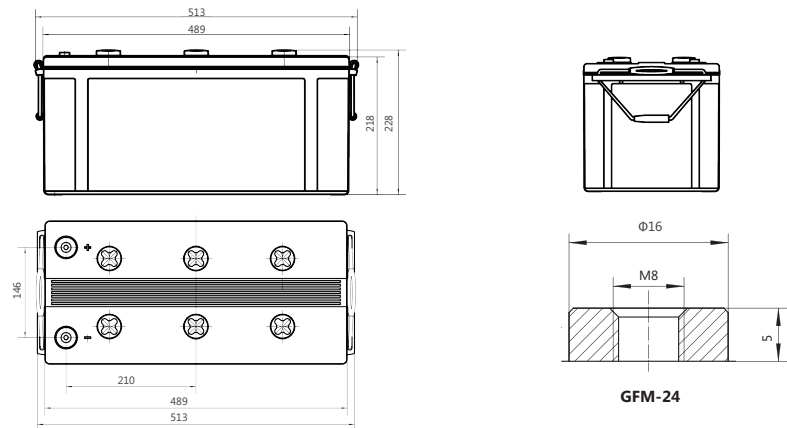
### Applications

- Telecommunications
- Emergency power
- Energy storage systems
- UPS units
- Electrical Power plants and substation

### Standards

- IEC 60896-21/22
- IEC 61427
- DIN 43539-T5
- EUROBAT guide

### Drawing



### Specifications

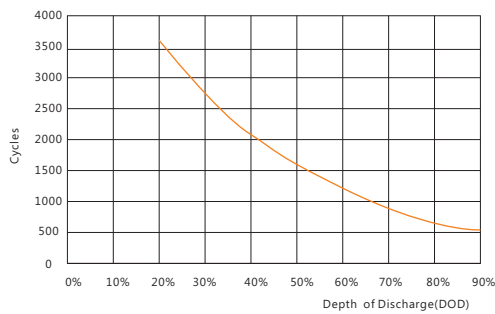
Battery Model	6FMJ-120			
Design Life (years, 25°C)	15			
Capacity (Ah, 25°C)	10HR (12A, 1.80V)	5HR (20.4A, 1.80V)	3HR (30A, 1.80V)	1HR(64.6A, 1.80V)
	120	102	90	64.6
Dimensions (mm)	Length	Width	Height	Total Height
	513	232	218	228
Approx. Weight (kg)	47.0			
Reference Internal Resistance (mΩ)	3.66 ( fully charged @ 25°C)			
Maximum Discharge Current (A/3 Sec.)	1196			
Self-Discharge (25°C)	≤ 2% per month			
Charge Voltage (V/cell, 25°C)	Cycle use		Float use	
	2.33 (-3.5mV/°C/cell), max charge current: 24A		2.22 (-3.5mV/°C/cell)	
Short Circuit Current (A)	2980			

## Discharge Data

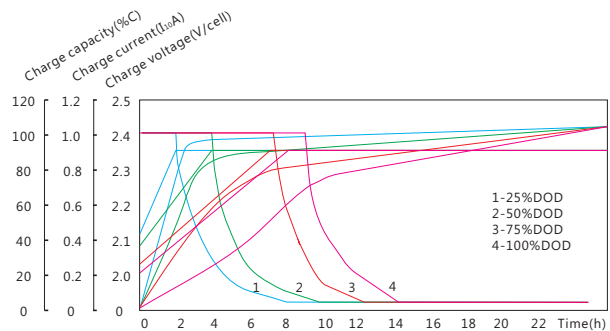
Constant Current Discharge Data (25°C, A)																		
End Voltage (V/cell)	min			h														
	15	30	45	1	1.5	2	3	4	5	6	8	10	20	24	48	100	120	240
1.60	187	120	83.7	70.8	53.9	42.1	32.8	26.3	22.3	20.4	15.8	13.1	6.77	5.71	2.84	1.37	1.31	0.68
1.65	182	118	82.0	69.3	52.8	41.2	32.2	25.8	21.9	20.0	15.5	12.9	6.62	5.60	2.78	1.36	1.30	0.67
1.70	176	115	80.4	68.0	51.8	40.4	31.5	25.2	21.5	19.6	15.1	12.6	6.49	5.50	2.75	1.34	1.28	0.66
1.75	171	113	78.7	66.6	50.7	39.6	30.9	24.7	21.0	19.2	14.8	12.4	6.372	5.39	2.70	1.33	1.27	0.65
1.80	162	110	76.4	64.6	49.2	38.4	30.0	24.0	20.4	18.6	14.4	12.0	6.24	5.28	2.66	1.32	1.26	0.64

Constant Power Discharge Data (25°C, W/cell)																		
End Voltage (V/cell)	min			h														
	15	30	45	1	1.5	2	3	4	5	6	8	10	20	24	48	100	120	240
1.60	326	210	146	125	94.8	74.0	58.8	47.8	40.9	37.0	29.0	24.4	13.0	11.1	5.57	2.72	2.62	1.38
1.65	320	208	145	123	94.5	73.8	58.6	47.4	40.5	36.9	28.7	24.3	12.9	11.0	5.51	2.71	2.60	1.36
1.70	313	206	144	122	93.7	73.6	58.0	46.7	40.1	36.8	28.6	24.2	12.7	10.9	5.47	2.70	2.59	1.35
1.75	309	205	143	121	93.3	73.3	57.4	46.3	39.7	36.6	28.5	24.1	12.6	10.8	5.40	2.69	2.58	1.33
1.80	302	203	141	120	92.5	73.0	57.0	45.8	39.4	36.3	28.2	23.8	12.5	10.6	5.35	2.68	2.57	1.31

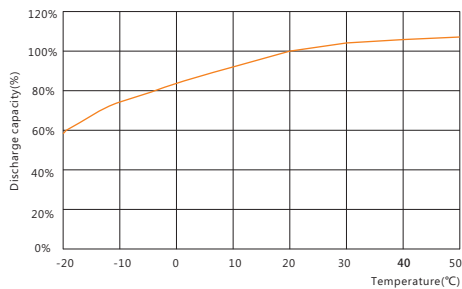
## Performance Curve



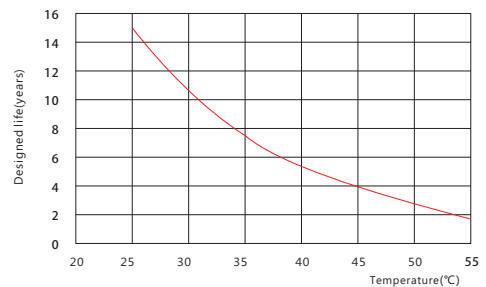
Cycle life vs. discharge depth



Charge vs. discharge depth



Capacity vs. temperature



Design life vs. temperature

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