

# FMJ Series

## 6FMJ-100 12V100Ah

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-SiO<sub>2</sub> micro-porous separator ensure low self-discharge rate
- Easy installation and handling

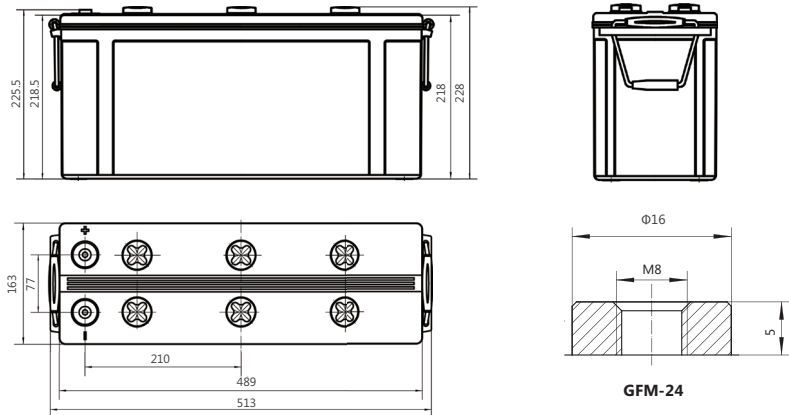
### Applications

- 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

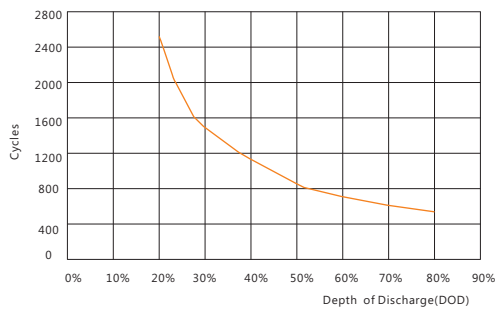
Battery Model	6FMJ-100			
Design Life (years, 25°C)	10			
Capacity (Ah, 25°C)	10HR (10A, 1.80V)	5HR (17A, 1.80V)	3HR (25A, 1.80V)	1HR(50A, 1.80V)
	100	85	75	50
Dimensions (mm)	Length	Width	Height	Total Height
	513	163	218	228
Approx. Weight (kg)	40.0			
Reference Internal Resistance (mΩ)	3.91 ( fully charged @ 25°C)			
Maximum Discharge Current (A/3 Sec.)	1104			
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: 20A		2.22 (-3.5mV/°C/cell)	
Short Circuit Current (A)	2950			

## Discharge Data

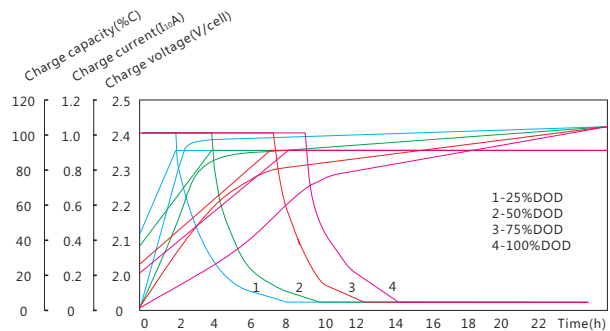
Constant Current Discharge Data (25°C, A)																		
End Voltage (V/cell)	min						h											
	5	10	15	20	30	45	1	1.5	2	3	5	10	20	24	48	100	120	240
1.60	273.7	199.5	155.4	130.3	95.3	68.5	53.6	44.0	33.7	25.7	17.5	10.0	5.29	4.53	2.38	1.23	1.07	0.57
1.65	259.7	192.5	152.4	128.3	94.3	66.8	52.9	43.4	33.7	25.7	17.5	10.0	5.29	4.53	2.38	1.23	1.07	0.57
1.70	244.6	182.5	149.4	125.3	93.2	66	52.0	42.7	33.7	25.7	17.5	10.0	5.29	4.53	2.38	1.23	1.07	0.57
1.75	226.6	169.4	144.4	120.3	90.3	65.4	51.3	42.1	33.7	25.7	17.5	10.0	5.29	4.53	2.38	1.23	1.07	0.57
1.80	193.5	154.4	135.3	112.3	85.3	64.9	50.0	41.0	32.7	25.0	17.0	10.0	5.10	4.31	2.38	1.23	1.07	0.57

Constant Power Discharge Data (25°C, W/cell)																		
End Voltage (V/cell)	min						h											
	5	10	15	20	30	45	1	1.5	2	3	5	10	20	24	48	100	120	240
1.60	493.0	369.3	289.9	243.3	182.3	137.1	106.8	83.0	65.0	47.1	32.2	19.0	10.2	9.15	4.86	2.50	2.20	1.17
1.65	458.6	355.7	283.5	240.4	180.7	135.9	104.9	82.4	65.0	47.1	32.2	18.8	10.2	9.15	4.86	2.50	2.20	1.17
1.70	419.3	336.1	274.0	235.5	178.2	134.0	104.9	81.6	65.0	47.1	32.2	18.8	10.2	9.15	4.86	2.50	2.20	1.17
1.75	386.5	311.5	265.5	226.6	173.6	130.9	103.0	80.8	65.0	47.1	32.2	18.6	10.2	9.15	4.86	2.50	2.20	1.17
1.80	359.6	284.0	253.5	212.3	165.4	126.2	101.6	78.9	63.4	45.9	30.5	18.1	9.92	8.80	4.86	2.50	2.20	1.17

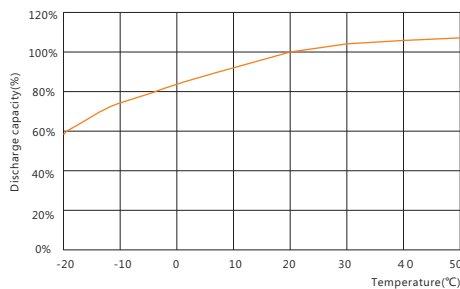
## Performance Curve



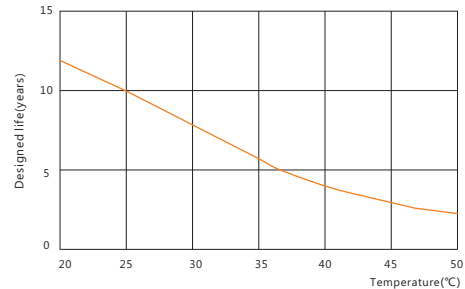
Cycle life vs. discharge depth



Charge vs. discharge depth



Capacity vs. temperature



Design life vs. temperature

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