

# FMJ Series

## 6FMJ-50 12V50Ah

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

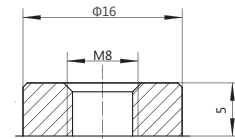
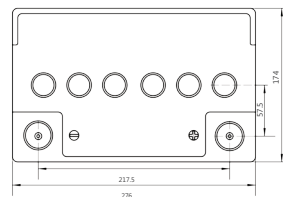
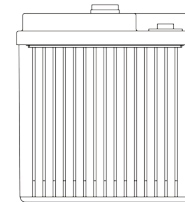
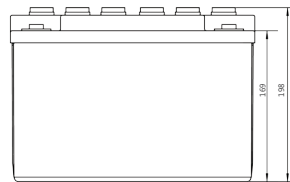
### Applications

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

### Standards

- IEC 60896-21/22
- IEC61427
- DIN43539-T5
- EUROBAT guide

### Drawing



GFM-24

### Specifications

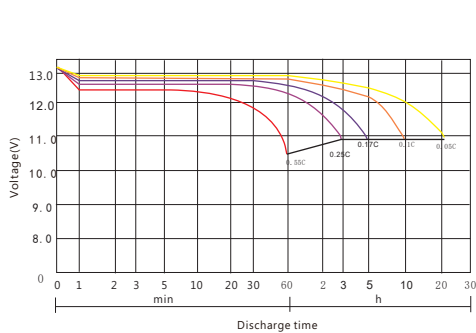
Battery Model	6FMJ-50			
Design Life (years, 25°C)	15			
Capacity (Ah, 25°C)	10HR (5.0A, 1.80V)	5HR (8.5A, 1.80V)	3HR (12.5A, 1.80V)	1HR(26.92A, 1.80V)
	50	42.5	37.5	26.92
Dimensions (mm)	Length	Width	Height	Total Height
	276	174	169	198
Approx. Weight (kg)	20.5			
Reference Internal Resistance (mΩ)	7.64 ( fully charged @ 25°C)			
Maximum Discharge Current (A/3 Sec.)	718			
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: 10 A		2.22 (-3.5mV/°C/cell)	
Short Circuit Current (A)	1525			

## Discharge Data

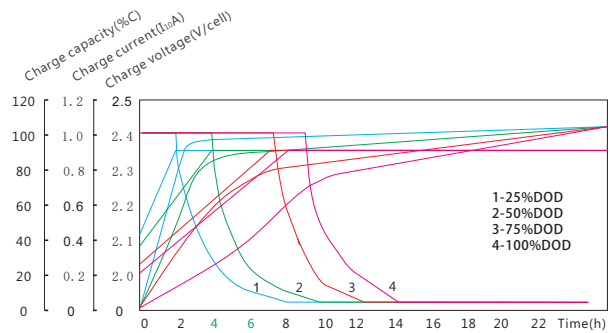
Constant Current Discharge Data (25°C, A)																		
End Voltage (V/cell)	min			h														
	15	30	45	1	1.5	2	3	4	5	6	8	10	20	24	48	100	120	240
1.60	78.00	49.98	34.88	29.48	22.45	17.53	13.68	10.95	9.310	8.480	6.570	5.475	2.820	2.380	1.185	0.570	0.545	0.285
1.65	75.65	48.98	34.18	28.89	22.01	17.18	13.41	10.73	9.120	8.315	6.440	5.365	2.760	2.335	1.160	0.565	0.540	0.280
1.70	73.35	48.00	33.50	28.32	21.57	16.85	13.13	10.52	8.940	8.150	6.310	5.255	2.705	2.290	1.145	0.560	0.535	0.275
1.75	71.20	47.04	32.78	27.75	21.13	16.50	12.86	10.31	8.750	7.985	6.185	5.150	2.655	2.245	1.125	0.555	0.530	0.270
1.80	67.65	45.63	31.85	26.92	20.50	16.01	12.50	10.00	8.500	7.750	6.000	5.000	2.600	2.200	1.110	0.550	0.525	0.265

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	136	87.46	61.04	51.88	39.51	30.85	24.49	19.93	17.04	15.43	12.09	10.18	5.414	4.617	2.323	1.134	1.090	0.576
1.65	133	86.69	60.50	51.42	39.39	30.75	24.41	19.74	16.87	15.38	11.98	10.14	5.354	4.577	2.297	1.130	1.085	0.568
1.70	131	85.92	59.97	50.97	39.03	30.67	24.15	19.45	16.72	15.32	11.93	10.09	5.302	4.557	2.279	1.126	1.081	0.561
1.75	129	85.61	59.66	50.51	38.88	30.53	23.92	19.28	16.54	15.25	11.88	10.04	5.230	4.490	2.250	1.121	1.076	0.554
1.80	126	84.41	58.91	50.06	38.54	30.41	23.75	19.10	16.41	15.11	11.76	9.900	5.200	4.422	2.231	1.117	1.071	0.546

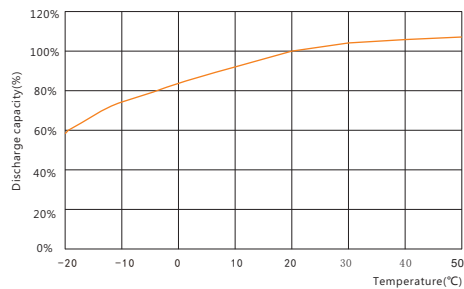
## Performance Curve



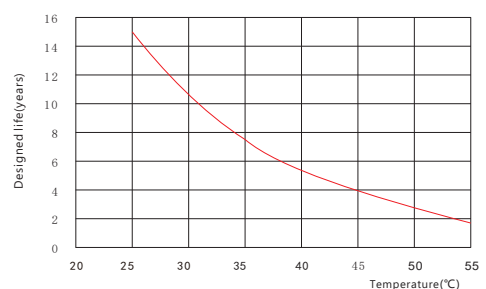
Discharge voltage vs. discharge time



Charge vs. discharge depth



Capacity vs. temperature



Design life vs. temperature

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