

# FMJ Series

## 6FMJ-33 12V33Ah

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

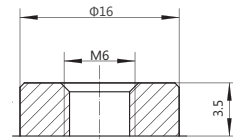
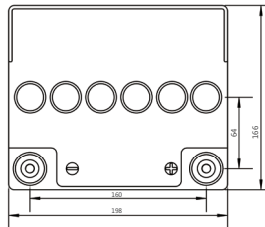
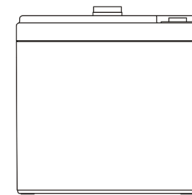
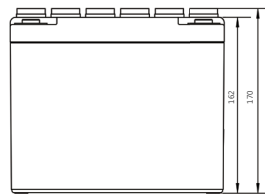
### Applications

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

### Standards

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

### Drawing



SP-27

### Specifications

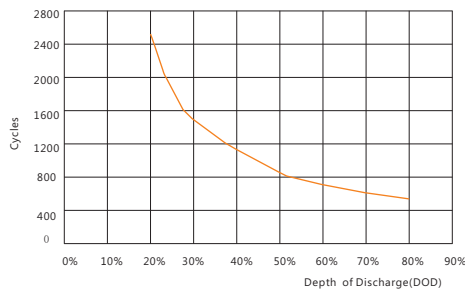
Battery Model	6FMJ-33			
Design Life (years, 25°C)	10			
Capacity (Ah, 25°C)	10HR (3.3A, 1.80V)	5HR (5.6A, 1.80V)	3HR (8.3A, 1.80V)	1HR (18.2A, 1.80V)
	33	28	24.9	18.2
Dimensions (mm)	Length	Width	Height	Total Height
	198	166	170	170
Approx. Weight (kg)	14.0			
Reference Internal Resistance (mΩ)	8.5 ( fully charged @ 25°C)			
Maximum Discharge Current (A/3 Sec.)	506			
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: 6.6 A		2.22 (-3.5mV/°C/cell)	
Short Circuit Current (A)	1010			

## Discharge Data

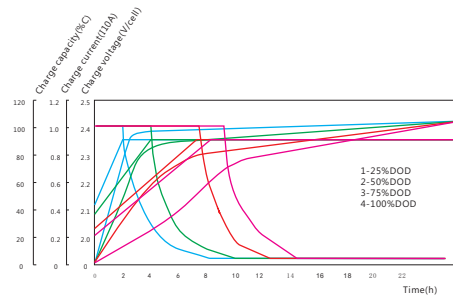
Constant Current Discharge Data (25°C, A)																		
End Voltage (V/cell)	min						h											
	5	10	15	20	30	45	1	1.5	2	3	5	10	20	24	48	100	120	240
1.65	92	67	52	44	32	25	19.1	14.8	11.4	8.60	5.80	3.30	1.78	1.52	0.80	0.41	0.36	0.19
1.70	88	65	51	43	32	25	18.7	14.6	11.4	8.60	5.80	3.30	1.78	1.52	0.80	0.41	0.36	0.19
1.75	82	61	50	42	31	24	18.7	14.4	11.4	8.60	5.80	3.30	1.78	1.52	0.80	0.41	0.36	0.19
1.80	76	57	49	41	30	23	18.4	14.2	11.4	8.60	5.80	3.30	1.78	1.52	0.80	0.41	0.36	0.19
1.85	65	52	46	38	29	22	18.2	13.8	11.0	8.30	5.65	3.30	1.72	1.45	0.80	0.41	0.36	0.19

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
1.65	163	122	96	80	60	45	35.2	27.4	21.5	15.50	10.60	6.30	3.40	3.02	1.60	0.83	0.73	0.39
1.70	151	117	94	79	60	45	34.6	27.2	21.5	15.50	10.60	6.20	3.40	3.02	1.60	0.83	0.73	0.39
1.75	138	111	90	78	59	44	34.6	26.9	21.5	15.50	10.60	6.20	3.40	3.02	1.60	0.83	0.73	0.39
1.80	128	103	88	75	57	43	34	26.7	21.5	15.50	10.60	6.10	3.40	3.02	1.60	0.83	0.73	0.39
1.85	119	94	84	70	55	42	33.5	26.0	20.9	15.10	10.10	6.00	3.30	2.90	1.60	0.83	0.73	0.39

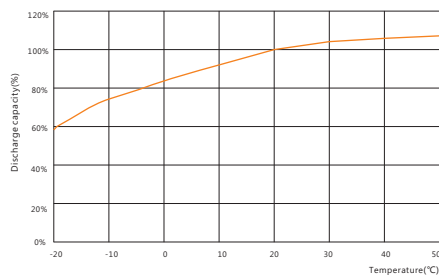
## Performance Curve



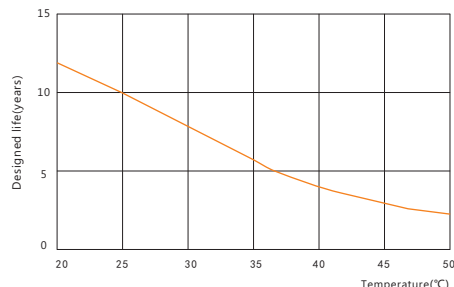
Cycle life vs. discharge depth



Charge vs. discharge depth



Capacity vs. temperature



Design life vs. temperature

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