

FM series VRLA battery uses AGM technology and high-purity raw materials. Its good floating back up and large current discharge performance makes it optimal and economical choice for UPS/EPS.

Benefits

- Long life according to EUROBAT Classification
- Maximum charge efficiency
- High gas recombination efficiency
- Low self-discharge rate
- Easy installation and handling
- Vertical or horizontal installation

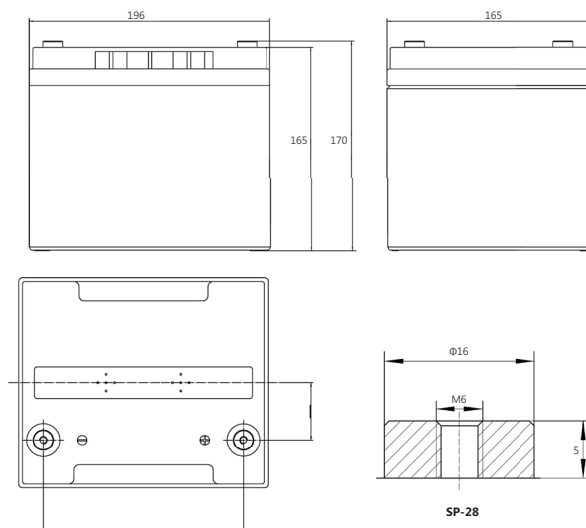
Applications

- UPS units
- Emergency power
- Starting generators
- EPS units

Standards

- IEC 60896-21/22
- JIS C8704-1/2
- EUROBAT guide

Drawing



Specifications

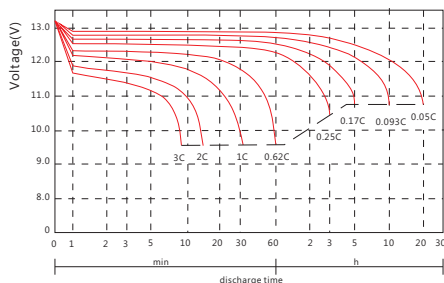
Battery Model	FM 12-40			
Design Life (years, 25°C)	10			
Capacity (Ah, 25°C)	20HR (1.935A, 1.80V)	10HR (3.80A, 1.80V)	5HR (6.46A, 1.75V)	1HR(21.57A, 1.70V)
	40.7	40.0	34.3	23.57
Dimensions (mm)	Length	Width	Height	Total Height
	196	165	165	170
Approx. Weight (kg)	12.2			
Reference Internal Resistance (mΩ)	9.0 (fully charged @ 25°C)			
Maximum Discharge Current (A/5 Sec.)	570			
Self-Discharge (25°C)	≤ 2% per month			
Charge Voltage (V/cell, 25°C)	Cycle use		Float use	
	2.40 (-4mV/°C/cell), max charge current: 11.4A		2.27 (-3mV/°C/cell)	
Short Circuit Current (A)	1300			

Discharge Data

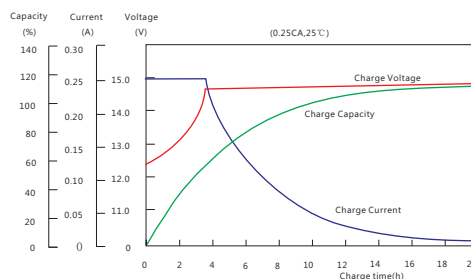
Constant Current Discharge Data (25°C, A)													
End Voltage (V/cell)	min						h						
	5	10	15	20	30	45	1	1.5	2	3	5	10	20
1.60	130.1	85.50	66.20	51.47	40.00	30.65	22.90	19.10	14.50	10.64	6.700	4.016	2.075
1.65	125.2	82.60	63.82	49.64	38.83	29.57	22.16	18.59	14.20	10.33	6.604	3.944	2.055
1.67	123.4	81.76	62.72	48.94	38.28	29.05	21.84	18.34	14.03	10.22	6.578	3.924	2.035
1.70	121.2	80.60	61.36	48.04	37.57	28.42	21.57	18.01	13.80	10.07	6.526	3.910	2.015
1.75	116.6	77.30	59.02	46.44	36.50	27.62	20.90	17.39	13.38	9.791	6.460	3.860	1.975
1.80	110.6	74.00	56.90	44.93	35.34	26.94	20.10	16.81	13.00	9.500	6.356	3.800	1.935

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
1.60	239.4	165.7	130.0	100.6	82.65	61.99	45.55	36.91	28.60	20.68	13.20	8.014	4.214
1.65	231.5	160.9	126.4	97.83	80.74	60.40	44.49	36.10	28.20	20.38	13.03	7.923	4.172
1.67	228.5	158.8	125.1	96.75	80.19	59.68	44.01	36.02	28.00	20.17	12.99	7.885	4.150
1.70	224.6	156.1	123.4	95.28	79.31	58.73	43.40	35.80	27.80	20.07	12.90	7.841	4.123
1.75	218.4	151.2	120.2	92.74	77.32	57.38	42.22	35.06	27.00	19.84	12.70	7.747	4.064
1.80	209.2	144.6	117.5	90.23	75.18	55.95	40.90	34.28	26.50	19.62	12.50	7.649	3.976

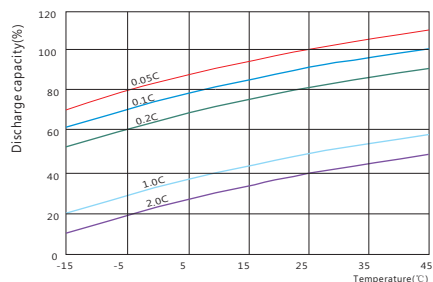
Performance Curve



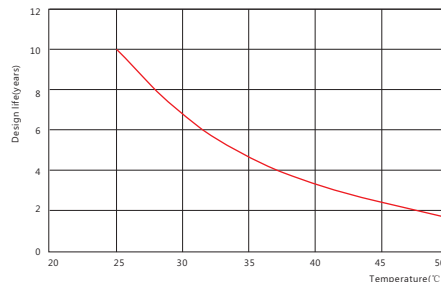
Discharge voltage vs. discharge time



Charge capacity vs. charge time



Discharge capacity vs. temperature



Design life vs. temperature