

SP Series

SP12-50 12V50Ah

SP 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

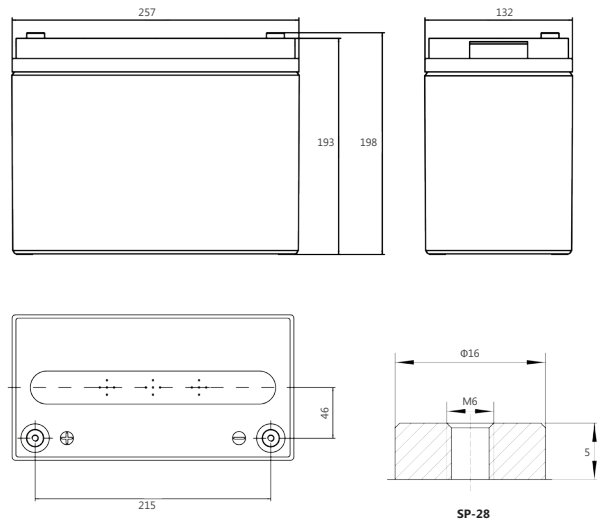
Applications

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

Standards

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

Drawing



Specifications

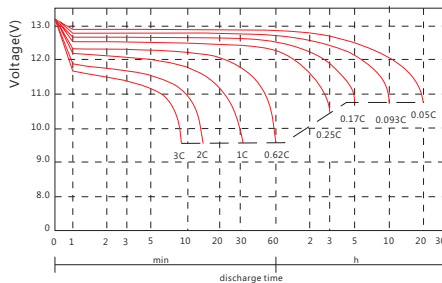
Battery Model	SP12-50			
Design Life (years, 25°C)	10			
Capacity (Ah, 25°C)	20HR (2.52A, 1.80V)	10HR (5.0A, 1.80V)	5HR (8.5A, 1.75V)	1HR(28.42A, 1.70V)
	50.4	50	42.5	28.42
Dimensions (mm)	Length	Width	Height	Total Height
	257	132	193	198
Approx. Weight (kg)	16.0			
Reference Internal Resistance (mΩ)	7.2 (full charged @ 25°C)			
Maximum Discharge Current (A/5 Sec.)	750			
Self-Discharge (25°C)	≤2% per month			
Charge Voltage (V/cell, 25°C)	Cycle use		Float use	
	2.40 (-3.5mV/°C/cell), max charge current: 15.0 A		2.27 (-3.5mV/°C/cell)	
Short Circuit Current (A)	1600			

Discharge Data

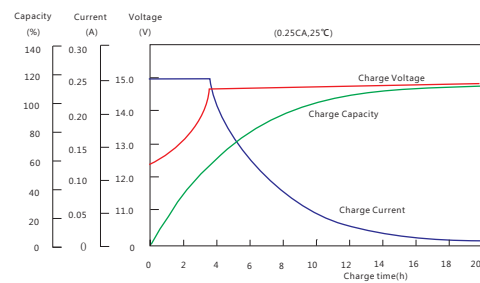
Constant Current Discharge Data (25°C, A)												
End Voltage (V/cell)	min					h						
	10	15	20	30	45	1	1.5	2	3	5	10	20
1.60	115.0	92.50	75.00	56.00	41.12	29.78	23.67	18.99	13.50	8.927	5.325	2.715
1.65	111.0	88.91	73.13	54.56	40.00	29.09	22.88	18.56	13.25	8.792	5.250	2.675
1.67	108.7	87.86	72.14	54.02	39.58	28.75	22.61	18.38	13.17	8.729	5.210	2.657
1.70	106.0	86.45	70.87	53.27	39.01	28.42	22.24	18.13	13.03	8.632	5.170	2.640
1.75	101.3	83.45	68.31	51.74	37.82	27.50	21.57	17.67	12.80	8.500	5.100	2.600
1.80	96.00	79.93	66.24	50.00	36.50	26.38	20.94	17.21	12.50	8.294	5.000	2.520

Constant Power Discharge Data (25°C, W/cell)												
End Voltage (V/cell)	min					h						
	10	15	20	30	45	1	1.5	2	3	5	10	20
1.60	206.8	159.5	139.0	111.9	81.50	61.74	48.72	37.75	26.52	18.50	10.92	5.655
1.65	198.9	156.3	135.9	109.2	78.95	59.70	47.63	36.96	25.90	18.20	10.69	5.540
1.67	196.1	155.2	134.4	107.8	78.17	59.02	47.13	36.54	25.63	17.93	10.59	5.491
1.70	192.5	153.4	132.3	105.9	77.08	58.03	46.44	35.97	25.31	17.59	10.42	5.435
1.75	186.1	149.6	129.2	102.8	74.60	56.27	45.00	34.58	24.45	16.90	10.25	5.280
1.80	177.4	145.7	125.5	97.83	71.94	54.17	43.50	33.40	23.56	16.50	9.890	5.100

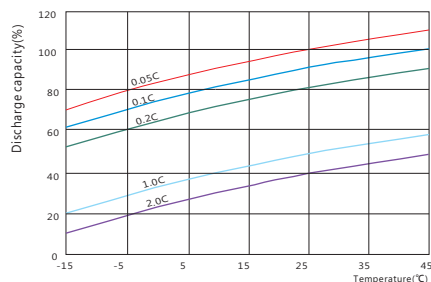
Performance Curve



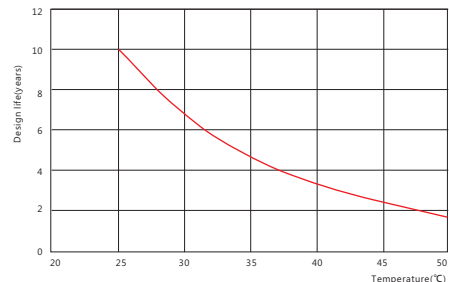
Discharge voltage vs. discharge time



Charge capacity vs. charge time



Discharge capacity vs. temperature



Design life vs. temperature

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