



SB Series-Battery

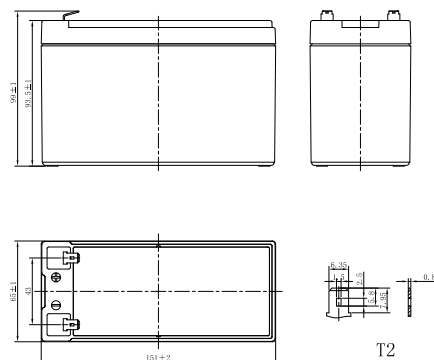
12SB9(12V9Ah)

Specifications of 12SB9

Rated Voltage		12V	
Nominal Capacity (20HR)		9Ah	
Dimension	Length	151mm±1 (5.95 inches)	
	Width	65mm±1 (2.56inches)	
	Container Height	94mm±1 (3.70 inches)	
	Total Height	99mm±1 (3.90 inches)	
Approx Weight		2.54kg (5.60lbs)	
Terminal		T1 /T2	
Container Material		ABS	
Rated Capacity	9.00 Ah	(0.450A, 20hr, 1.80V/cell, 25°C/77°F)	
	8.31 Ah	(0.831A, 10hr, 1.80V/cell, 25°C/77°F)	
	7.55 Ah	(1.51A, 5hr, 1.75V/cell, 25°C/77°F)	
	6.84 Ah	(2.28A, 3hr, 1.75V/cell, 25°C/77°F)	
	6.24 Ah	(6.24A, 1hr, 1.60V/cell, 25°C/77°F)	
Max. Discharge Current		135A (5s)	
Internal Resistance(25°C)		Approx 17mΩ	
Operating Temp. Range	Discharge	-15 ~ 50°C (5 ~ 122°F)	
	Charge	0 ~ 40°C(32 ~ 104°F)	
	Storage	-15 ~ 40°C(5 ~ 104°F)	
Nominal Operating Temp. Range		25±3°C (77±5°F)	
Standby Use	No limit on Initial Charging Current Voltage		
	13.5V~13.8Vat 25°C(77°F)Temp. Coefficient -20mV/°C		
Cycle Use	Initial Charging Current less than 2.70A.Voltage		
	14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C		
Effect of temp. to Capacity			103%
	40°C (104°F)25°C (77°F)0°C (32°F)		100%
	Marstech series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required.		86%
Self Discharge			
		For higher temperatures the time interval will be shorter	



Layout



Constant Current Discharge (Amperes) at 25°C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	21.5	16.1	13.1	10.1	7.24	5.65	3.12	2.19	1.72	1.44	1.25	0.98	0.812	0.446
1.80V/cell	23.2	17.1	13.9	10.5	7.42	5.80	3.18	2.23	1.76	1.47	1.28	1.00	0.831	0.450
1.75V/cell	24.8	18.0	14.5	10.8	7.61	5.93	3.24	2.28	1.80	1.51	1.30	1.03	0.843	0.455
1.70V/cell	26.3	18.6	15.0	11.1	7.77	6.02	3.30	2.32	1.83	1.54	1.33	1.05	0.858	0.463
1.65V/cell	27.4	19.4	15.6	11.3	7.95	6.13	3.35	2.36	1.87	1.57	1.36	1.06	0.874	0.469
1.60V/cell	28.5	20.2	16.3	11.7	8.08	6.24	3.40	2.40	1.91	1.60	1.39	1.08	0.887	0.472

Constant Power Discharge (Watts/cell) at 25°C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	40.3	30.2	24.7	19.2	13.9	10.9	6.05	4.27	3.36	2.83	2.45	1.93	1.61	0.883
1.80V/cell	42.6	31.6	26.0	19.8	14.1	11.1	6.13	4.32	3.42	2.87	2.50	1.98	1.64	0.890
1.75V/cell	45.0	33.0	26.9	20.2	14.4	11.3	6.22	4.39	3.49	2.93	2.54	2.01	1.66	0.898
1.70V/cell	47.1	33.7	27.7	20.7	14.6	11.5	6.32	4.47	3.55	2.98	2.59	2.05	1.69	0.913
1.65V/cell	48.3	34.8	28.5	21.0	14.9	11.6	6.40	4.54	3.59	3.04	2.64	2.08	1.72	0.925
1.60V/cell	49.6	35.6	29.2	21.3	15.0	11.7	6.46	4.59	3.66	3.09	2.69	2.11	1.74	0.929



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12SB9(12V9Ah)

Applications

- Telecommunications
- UPS system
- Wind power system
- Engine starting
- Wheelchair, Floor cleaning machines, Golf trolley, Boats

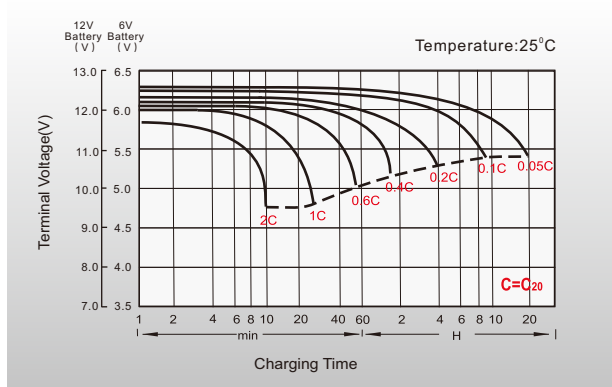
General Features

- Battery design life up to 5 years
- Special plate design guarantees battery floating life more than 1800 times
- High thermal capacity reduce the risk of thermal out of control and drying hard, and the battery can be used in bad environment
- Little water losing, and no electrolyte stratification phenomenon

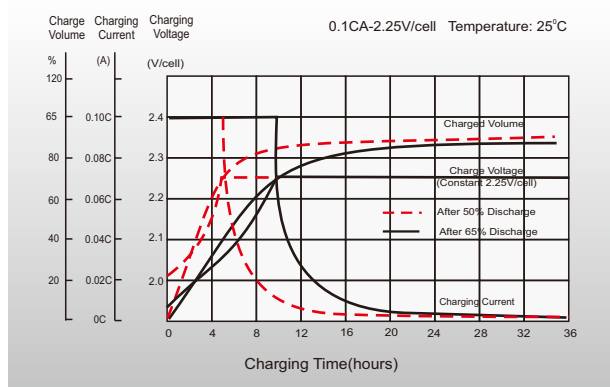
Standards

- IEC 60896 Certified
- Classified as "Long Life"
- ISO 9001 Certified
- Manufactured in standard IATF16949,

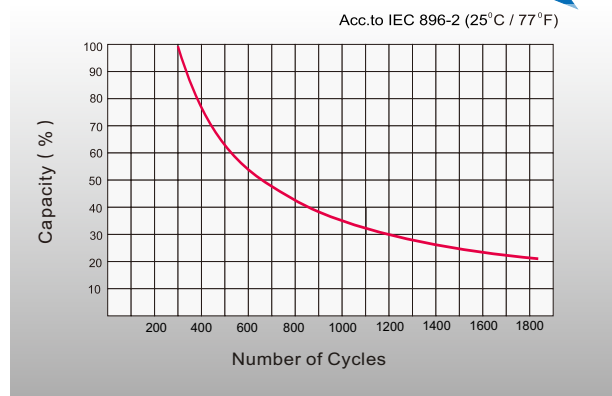
Discharge Characteristics



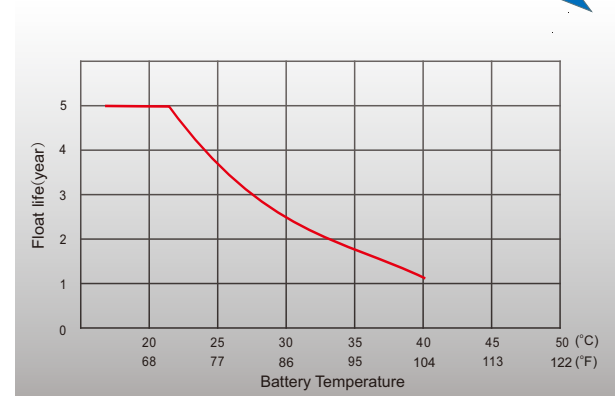
Float Charging Characteristics



Cycle Life in Relation to Depth of Discharge



Float Service Life



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