



Marstech

SB Series-Battery

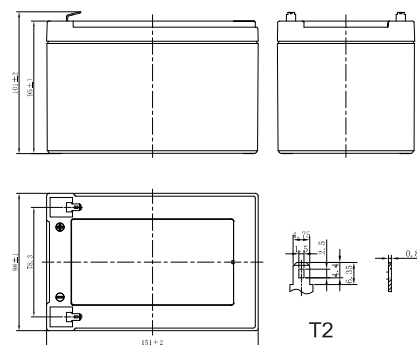
12SB12(12V12Ah)

Specifications of 12SB12

Rated Voltage		12V
Nominal Capacity (20HR)		12Ah
Dimension	Length	151±1mm (5.95 inches)
	Width	98±1mm (3.86 inches)
	Container Height	95±1mm (3.74 inches)
	Total Height	101±1mm (3.98 inches)
Approx Weight		3.60kg (7.94lbs)
Terminal		T2
Container Material		ABS
Rated Capacity	12.0 Ah	(0.6A, 20hr, 1.80V/cell, 25°C/77°F)
	11.2 Ah	(1.12A, 10hr, 1.80V/cell, 25°C/77°F)
	10.2 Ah	(2.04A, 5hr, 1.75V/cell, 25°C/77°F)
	9.2 Ah	(3.06A, 3hr, 1.75V/cell, 25°C/77°F)
	7.54 Ah	(7.54A, 1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current		180A (5s)
Internal Resistance(25°C)		Approx 14mΩ
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~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Cycle Use	Initial Charging Current less than 3.6A.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.	
Self Discharge	86%	
	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	17.5	14.5	12.6	9.72	7.16	6.03	3.57	2.79	2.27	1.85	1.61	1.30	1.08	0.594
1.80V/cell	22.4	17.6	14.9	11.5	8.33	6.76	3.90	3.00	2.42	1.99	1.72	1.37	1.12	0.600
1.75V/cell	24.6	19.2	16.0	11.9	8.64	7.07	4.04	3.06	2.48	2.04	1.77	1.40	1.15	0.606
1.70V/cell	26.9	20.5	16.8	12.4	8.99	7.29	4.14	3.15	2.54	2.09	1.81	1.42	1.17	0.617
1.65V/cell	29.0	21.8	17.8	13.1	9.21	7.46	4.20	3.28	2.63	2.15	1.85	1.44	1.19	0.625
1.60V/cell	31.5	23.3	19.0	13.8	9.60	7.54	4.38	3.38	2.71	2.22	1.89	1.45	1.21	0.629

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	32.4	27.1	23.7	18.5	13.8	11.6	6.93	5.44	4.44	3.63	3.16	2.56	2.14	1.18
1.80V/cell	40.9	32.3	27.6	21.5	15.9	13.0	7.51	5.82	4.71	3.88	3.37	2.71	2.21	1.19
1.75V/cell	44.3	34.9	29.4	22.2	16.3	13.5	7.76	5.91	4.80	3.97	3.46	2.75	2.26	1.20
1.70V/cell	47.1	36.7	30.7	22.9	16.9	13.9	7.94	6.06	4.92	4.06	3.52	2.78	2.31	1.22
1.65V/cell	50.4	38.7	32.3	24.0	17.2	14.1	8.01	6.29	5.07	4.16	3.59	2.82	2.35	1.23
1.60V/cell	53.5	40.8	34.1	25.2	17.8	14.2	8.31	6.45	5.21	4.28	3.65	2.84	2.37	1.24



SB Series-Battery 12SB12(12V12Ah)

Applications

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

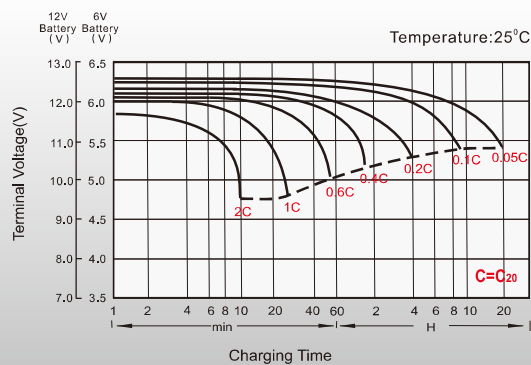
General Features

- 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

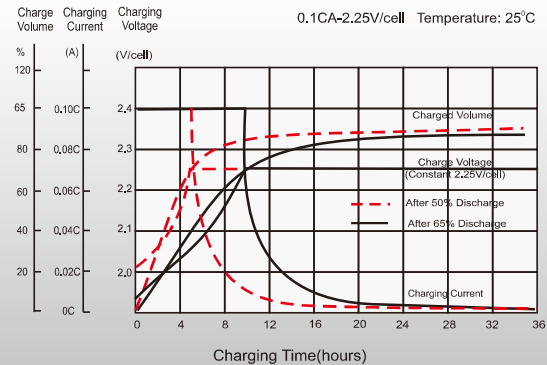
Standards

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

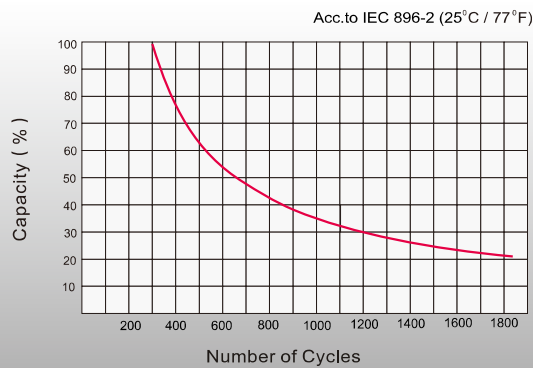
Discharge Characteristics



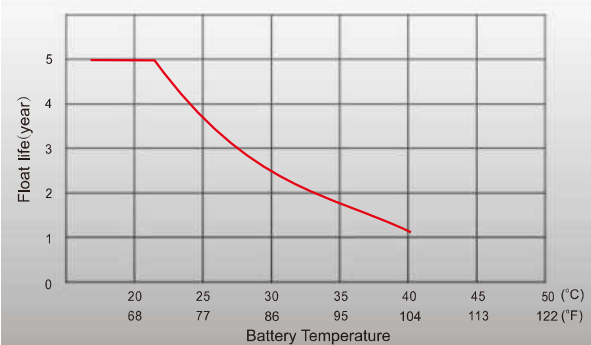
Float Charging Characteristics



Cycle Life in Relation to Depth of Discharge



Float Service Life



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