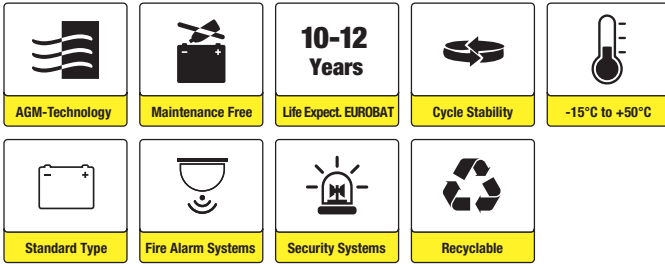




⊕⊖ sunbattery®

SB12-38/SB12-38V0 (12V38Ah)



Applications

- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Emergency light
- Railway signal
- Alarm and security system
- Communication power supply
- DC power supply

Certificates

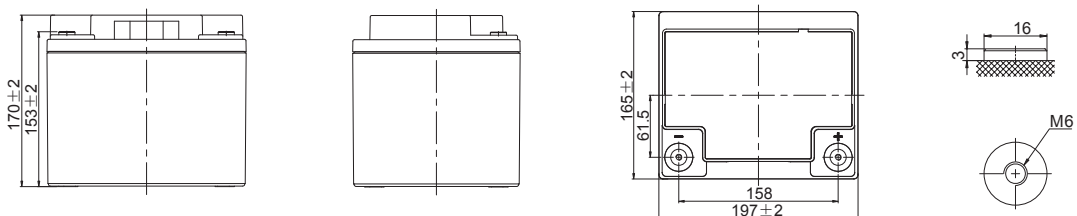


Specifications

Nominal Voltage	12V	Nominal Oper. Temp. R.	25±3°C
Nominal Capacity	38.0Ah (C ₂₀ , 1.80V/cell)	Cycle Use	Initial Charging Current less than 12.0A. Voltage 14.4V~15.0V at 25°C. Temperature Coefficient -30mV/°C.
Approx. Weight	13.2kg	Standby Use	No limit on Initial Charging Current. Voltage 13.5V~13.8V at 25°C Temp. Coefficient -20mV/°C
Terminal	M6	Capacity affected by Temp.	40°C 103% 25°C 100% 0°C 86%
Container Material	ABS UL94 HB/UL94 V0	Self Discharge	SB batteries may be stored for up to 6 months at 25°C and then a freshening charge is required. For higher temperatures the time interval will be shorter.
Rated Capacity (25°C)	38.0Ah/1.9A, 20hr, 1.80V/cell 36.1Ah/3.61A, 10hr, 1.80V/cell 31.1Ah/6.21A, 5hr, 1.75V/cell 28.2Ah/9.39A, 3hr, 1.75V/cell 22.0Ah/22.0A, 1hr, 1.60V/cell	Life Expectancy	10-12 years according to EUROBAT
Max. Discharge Current	456A (5s)		
Internal Resistance / Impedance (1kHz)	Approx. 10mΩ		
Operating Temp. Range	Discharge: -15~50°C Charge: 0~40°C Storage: -15~40°C		

Dimensions

- **M6 Terminal**
Unit: mm [inches]





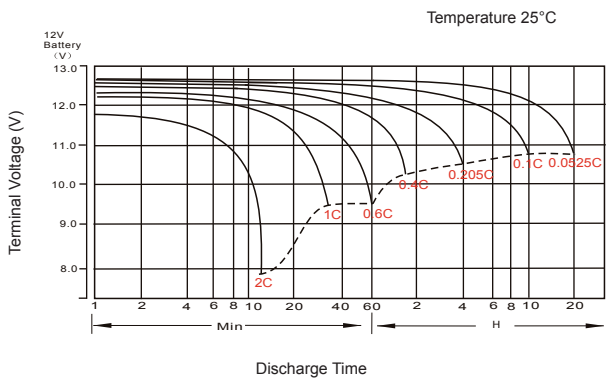
Constant Current Discharge (Amperes) at 25°C

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	61.8	48.6	41.3	34.6	27.5	20.8	17.0	10.8	8.57	7.00	5.64	4.91	3.99	3.41	1.88
1.80V/cell	82.9	62.1	49.9	40.8	32.4	24.2	19.1	11.8	9.22	7.48	6.06	5.27	4.23	3.61	1.90
1.75V/cell	93.5	68.2	54.5	43.9	33.6	25.1	19.9	12.3	9.39	7.64	6.21	5.42	4.30	3.65	1.92
1.70V/cell	103.0	74.3	58.2	46.2	35.0	26.1	20.6	12.8	9.66	7.84	6.38	5.53	4.36	3.68	1.95
1.65V/cell	113.5	80.2	61.9	49.1	36.9	26.7	21.3	13.1	10.1	8.12	6.55	5.65	4.43	3.76	1.98
1.60V/cell	125.2	87.1	66.2	52.3	39.0	27.9	22.0	13.6	10.4	8.37	6.77	5.77	4.48	3.80	1.99

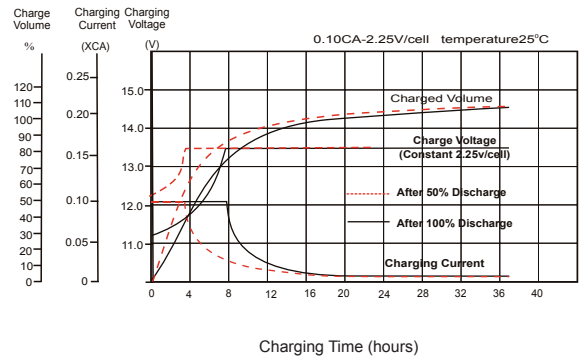
Constant Power Discharge (Watts/cell) at 25°C

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	113.0	89.7	77.1	65.1	52.3	39.9	32.8	21.1	16.7	13.7	11.1	9.66	7.88	6.75	3.73
1.80V/cell	150.0	113.3	91.9	75.9	60.8	46.1	36.6	22.8	17.9	14.5	11.8	10.3	8.33	7.14	3.76
1.75V/cell	165.5	122.5	99.1	80.8	62.6	47.4	38.1	23.6	18.1	14.8	12.1	10.6	8.45	7.20	3.79
1.70V/cell	177.2	130.5	104.4	84.3	64.8	49.1	39.2	24.5	18.6	15.2	12.4	10.8	8.56	7.26	3.86
1.65V/cell	192.7	139.5	110.1	88.9	67.8	49.9	40.2	25.0	19.3	15.6	12.7	11.0	8.68	7.40	3.91
1.60V/cell	207.6	148.0	115.8	93.7	71.1	51.7	41.4	25.7	19.8	16.1	13.1	11.2	8.74	7.47	3.92

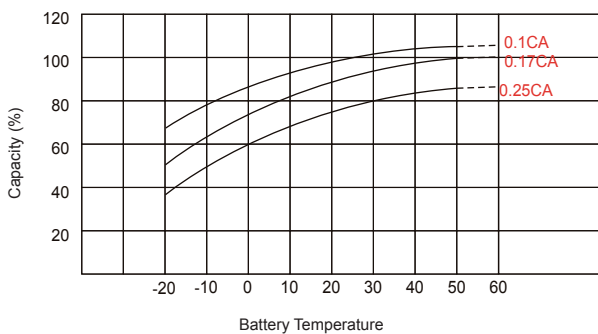
Discharge Characteristics



Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life

