sunbattery®

SB12-40V0 (12V40Ah)

AGM-Technology | Maintenance Free | 10-12 Years Life Expect. EUROBAT | Cycle Stability | -15°C to +50°C

Standard Type | Fire Alarm Systems | Security Systems | Flame Retardant | Recyclable

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

VdS G122031 | ISO 9001

Conform to IEC60896-21&22

Specifications

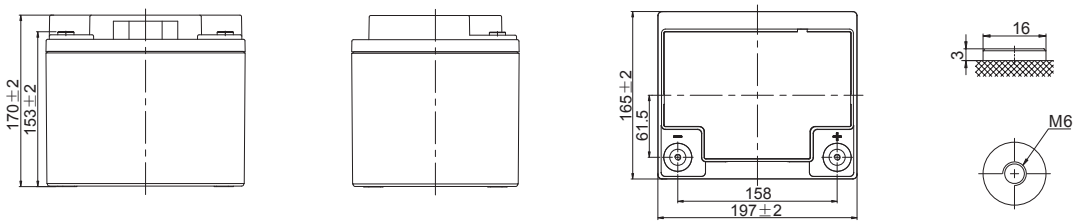
Nominal Voltage	12V	
Nominal Capacity	40.0Ah (C_{20}, 1.80V/cell)	
Approx. Weight	13.2kg	
Terminal	M6	
Container Material	ABS UL94 V0	
Rated Capacity (25°C)	40.0Ah/2A, 20hr, 1.80V/cell	
	38.0Ah/3.8A, 10hr, 1.80V/cell	
	33.5Ah/6.7A, 5hr, 1.75V/cell	
	30.3Ah/10.1A, 3hr, 1.75V/cell	
	24.2Ah/24.2A, 1hr, 1.60V/cell	
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

Nominal Oper. Temp. R.	25±3°C	
Cycle Use	Initial Charging Current less than 12.0A.	
	Voltage 14.7V +-1% at 25°C.	
	Temperature Coefficient -30mV/°C.	
Standby Use	No limit on Initial Charging Current.	
	Voltage 13.65V +-1% at 25°C Temp.	
	Coefficient -20mV/°C	
Capacity affected by Temp.	40°C	103%
	25°C	100%
	0°C	86%
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.	
Life Expectancy	10-12 years according to EUROBAT	

Dimensions

M6 Terminal

Unit: mm | Dimensions: 197 Length X 165 Width X 170 Height (170 Height incl. Terminal)



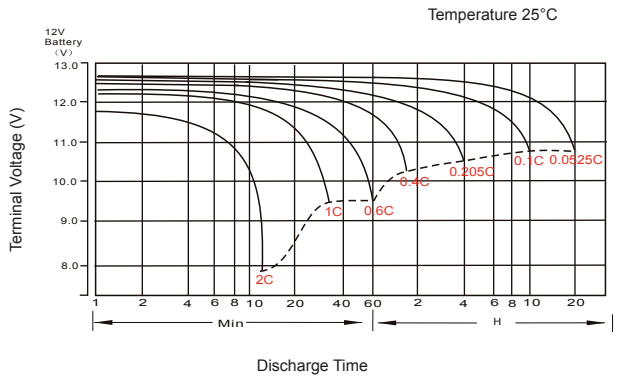
Constant Current Discharge (Amperes) at 25°C

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	70.9	55.5	46.8	39.0	31.7	23.3	18.7	11.6	9.22	7.15	6.09	5.34	4.34	3.59	1.98
1.80V/cell	95.2	70.9	56.6	46.0	37.3	27.1	21.0	12.6	9.92	7.64	6.54	5.73	4.60	3.80	2.00
1.75V/cell	107.3	77.8	61.8	49.5	38.7	28.1	21.9	13.2	10.10	7.80	6.70	5.89	4.68	3.84	2.02
1.70V/cell	118.2	84.8	66.0	52.1	40.3	29.2	22.6	13.7	10.39	8.00	6.88	6.01	4.74	3.87	2.05
1.65V/cell	130.3	91.5	70.2	55.4	42.5	29.9	23.4	14.0	10.86	8.29	7.07	6.14	4.82	3.96	2.08
1.60V/cell	143.7	99.4	75.1	59.0	44.9	31.2	24.2	14.6	11.19	8.55	7.30	6.27	4.87	4.00	2.09

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

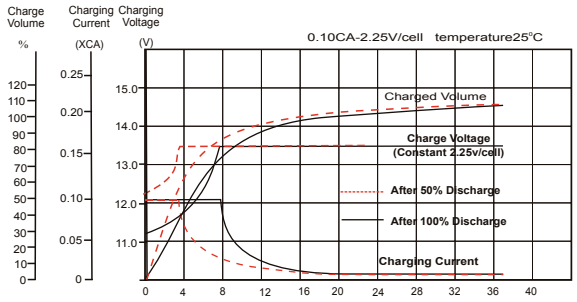
F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	129.70	102.35	87.45	73.40	60.21	44.62	36.03	22.58	17.96	13.99	11.98	10.50	8.57	7.11	3.93
1.80V/cell	172.17	129.28	104.24	85.57	70.00	51.55	40.21	24.40	19.25	14.80	12.73	11.20	9.06	7.52	3.96
1.75V/cell	189.97	139.78	112.40	91.10	72.07	53.01	41.86	25.26	19.47	15.11	13.05	11.53	9.19	7.58	3.99
1.70V/cell	203.40	148.90	118.41	95.04	74.60	54.91	43.06	26.22	20.01	15.52	13.38	11.74	9.31	7.64	4.06
1.65V/cell	221.19	159.17	124.88	100.23	78.06	55.80	44.16	26.76	20.76	15.93	13.70	11.96	9.44	7.79	4.12
1.60V/cell	238.29	168.87	131.34	105.64	81.86	57.82	45.48	27.51	21.30	16.44	14.13	12.18	9.50	7.86	4.13

Discharge Characteristics



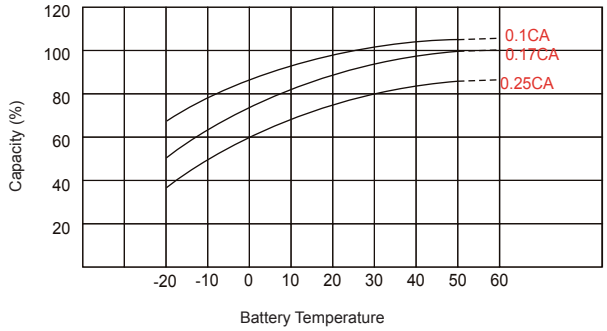
Discharge Time

Float Charging Characteristics



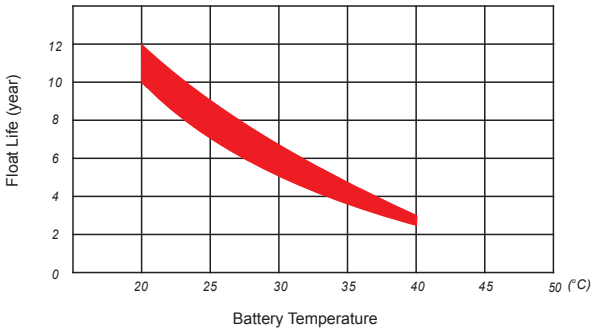
Charging Time (hours)

Temperature Effects in Relation to Battery Capacity



Battery Temperature

Effect of Temperature on Long Term Float Life



Battery Temperature