



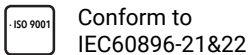
# SBL40-12i (12V40Ah)



## 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



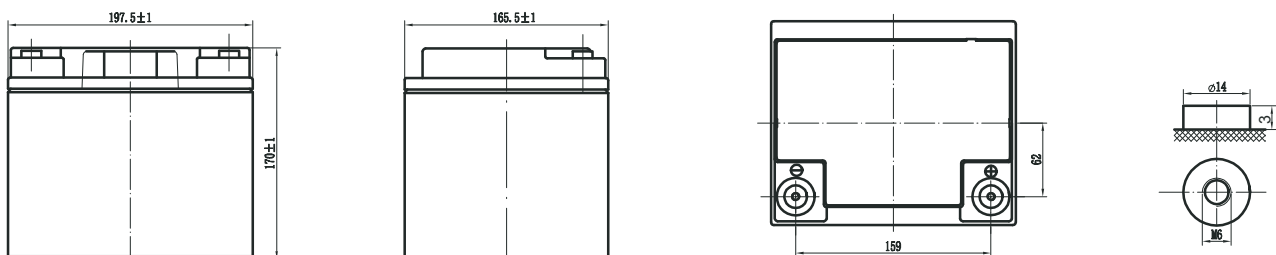
## Specifications

<b>Nominal Voltage</b>	12V	<b>Operating Temp. Range</b>	Discharge: -20~50°C
<b>Nominal Capacity</b>	40.0Ah (C <sub>10</sub> , 10.8V)		Charge: -10~50°C
<b>Approx. Weight</b>	13.8kg		Storage: -20~50°C
<b>Terminal</b>	M6	<b>Cycle Use</b>	Initial Charging Current less than 12.0A.
<b>Container Material</b>	ABS UL94 HB		Voltage 14.55V +1% at 20°C.
<b>Rated Capacity (20°C)</b>	42.2Ah/2.11A, 20hr, 10.8V		Temperature Coefficient -30mV/°C.
	40.0Ah/4.0A, 10hr, 10.8V	<b>Standby Use</b>	No limit on Initial Charging Current.
	38.08Ah/4.76A, 8hr, 10.5V		Voltage 13.65V +1% at 20°C.
	34.15Ah/6.83A, 5hr, 10.5V		Temperature Coefficient -20mV/°C.
	28.95Ah/9.65A, 3hr, 10.5V	<b>Capacity affected by Temp.</b>	40°C 103%
	24.9Ah/24.9A, 1hr, 9.6V		25°C 100%
<b>Max. Discharge Current</b>	400A (5s)		0°C 86%
<b>Internal Resistance / Impedance (1kHz)</b>	Approx. 9.7mΩ	<b>Self Discharge</b>	SSB batteries may be stored for up to 6 months at 20°C and then a freshening charge is required. For higher temperatures the time interval will be shorter.
<b>Nominal Oper. Temp. R.</b>	20±3°C	<b>Life Expectancy</b>	10-12 years according to EUROBAT

## Dimensions

### ■ M6 Terminal

Unit: mm | Dimensions: 197.5 Length X 165.5 Width X 170 Height (170 Height incl. Terminal)



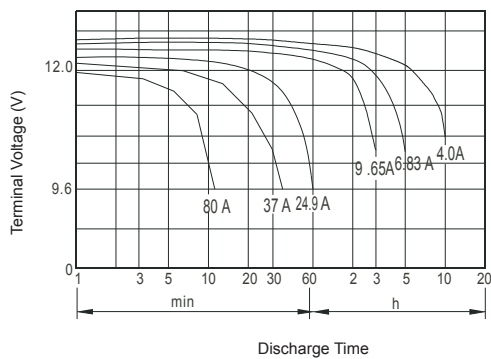
### Constant Current Discharge (Amperes) at 20°C

End Point	10min	15min	30min	1h	1.5h	3h	5h	8h	10h	20h
1.60V/cell	86.5	70.7	39.9	24.9	18.5	10.3	7.22	4.99	4.20	2.22
1.65V/cell	82.2	67.1	38.7	24.6	18.2	10.1	7.10	4.92	4.15	2.20
1.70V/cell	77.8	64.5	37.3	24.2	17.9	9.89	6.97	4.84	4.10	2.18
1.75V/cell	73.6	61.0	36.1	23.9	17.6	9.65	6.83	4.76	4.05	2.15
1.80V/cell	69.9	55.2	35.8	23.5	17.3	9.43	6.66	4.69	4.00	2.11

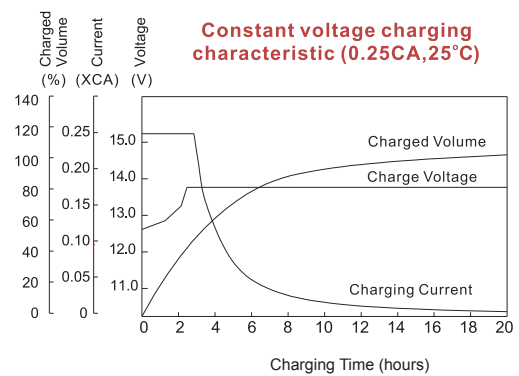
### Constant Power Discharge (Watts/cell) at 20°C

End Point	10min	15min	30min	45min	1h	1.5h	2h	3h	5h	8h
1.60V/cell	158	124	81.2	60.2	49.9	36.7	27.5	21.0	14.0	7.43
1.65V/cell	152	120	78.8	59.0	49.2	36.2	27.1	20.7	13.8	7.33
1.70V/cell	144	117	76.3	57.8	48.3	35.5	26.6	20.3	13.6	7.22
1.75V/cell	138	113	73.8	56.6	47.5	35	26.2	20.0	13.4	7.11
1.80V/cell	130	109	71.3	55.4	46.7	34.4	25.8	19.6	13.3	7.06

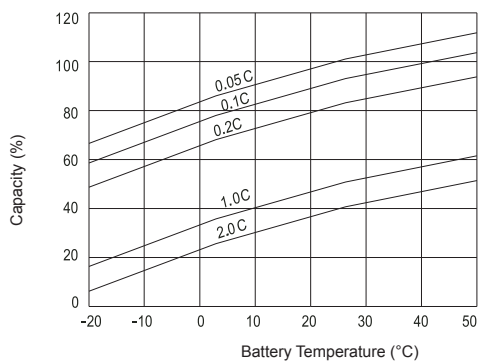
### Discharge Characteristics



### Float Charging Characteristics



### Temperature Effects in Relation to Battery Capacity



### Effect of Temperature on Long Term Float Life

