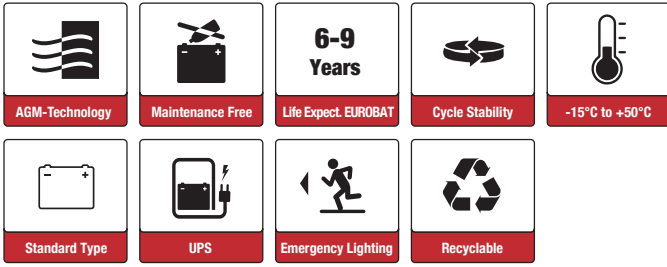




# SBL4.5-12LV0 (12V4.5Ah)



## 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

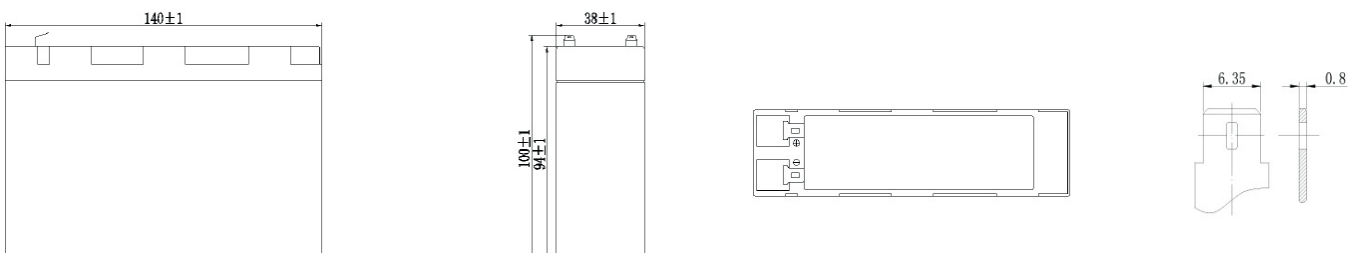
<b>Nominal Voltage</b>	12V	<b>Operating Temp. Range</b>	Discharge: -20~50°C
<b>Nominal Capacity</b>	4.5Ah (C <sub>20</sub> 10.5V)		Charge: -10~50°C
<b>Approx. Weight</b>	1.25kg		Storage: -20~50°C
<b>Terminal</b>	T2	<b>Cycle Use</b>	Initial Charging Current less than 1.35A.
<b>Container Material</b>	ABS UL94 V0		Voltage 14.55V +1% at 20°C.
<b>Rated Capacity (20°C)</b>	4.5Ah/0.225A, 20hr, 10.5V		Temperature Coefficient -30mV/°C
	3.9Ah/0.39A, 10hr, 10.5V	<b>Standby Use</b>	Initial Charging Current less than 1.35A.
	3.55Ah/0.71A, 5hr, 10.5V		Voltage 13.65V +1% at 20°C Temp.
	3.15Ah/1.05A, 3hr, 10.5V		Temperature Coefficient -20mV/°C
	2.73Ah/2.73A, 1hr, 9.6V	<b>Capacity affected by Temp.</b>	40°C 103%
<b>Max. Discharge Current</b>	45A (5 sec.)		25°C 100%
<b>Internal Resistance / Impedance (1kHz)</b>	Approx. 40mΩ		0°C 86%
<b>Nominal Oper. Temp. R.</b>	20±3°C	<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>Life Expectancy</b>	6-9 years according to EUROBAT



## Dimensions

### ■ T2 Terminal

Unit: mm | Dimensions: 140±1 Length X 38±1 Width X 94±1 Height (100±1 Height incl. Terminal)



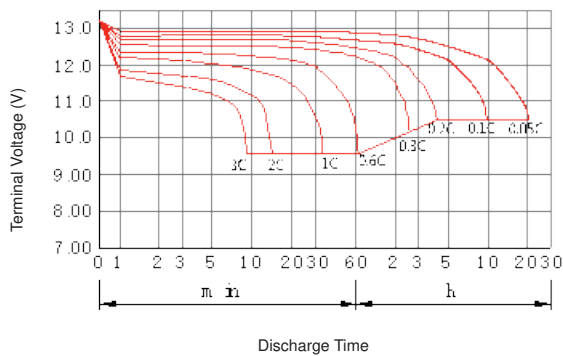
### Constant Current Discharge (Amperes) at 20°C

F.V/TIME	5min	10min	15min	30min	1h	2h	3h	4h	5h	10h	20h
9.60V	16.0	10.1	7.98	4.5	2.73	1.49	1.07	0.86	0.73	0.40	0.228
9.90V	15.5	9.78	7.79	4.36	2.69	1.48	1.06	0.85	0.72	0.39	0.227
10.2V	14.8	9.37	7.50	4.23	2.62	1.47	1.06	0.85	0.72	0.39	0.226
10.5V	14.2	8.97	7.25	4.13	2.57	1.45	1.05	0.84	0.71	0.39	0.225
10.8V	13.4	8.47	6.86	3.98	2.49	1.41	1.02	0.81	0.69	0.38	0.221

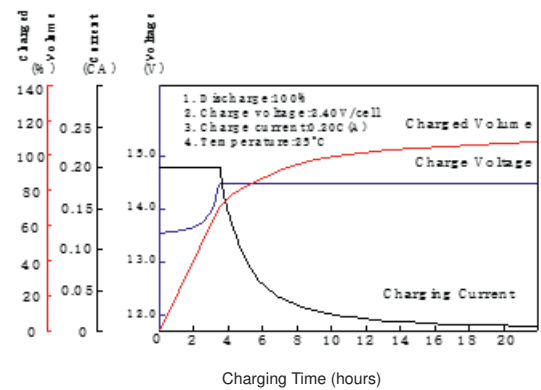
### Constant Power Discharge (Watts/cell) at 20°C

F.V/TIME	5min	10min	15min	30min	1h	2h	3h	4h	5h	10h	20h
9.60V	178	114	91.0	51.0	31.6	17.5	12.7	10.2	8.70	4.76	2.74
9.90V	173	110	88.8	50.0	31.1	17.4	12.6	10.1	8.64	4.74	2.73
10.2V	166	106	85.5	48.5	30.3	17.2	12.6	10.1	8.58	4.72	2.72
10.5V	159	101	82.6	47.3	29.7	16.9	12.5	10.0	8.53	4.69	2.70
10.8V	150	95.5	78.2	45.6	28.8	16.5	12.1	9.70	8.27	4.59	2.65

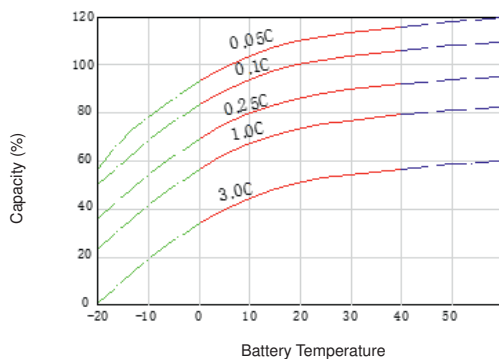
### Discharge Characteristics



### Float Charging Characteristics



### Temperature Effects in Relation to Battery Capacity



### Effect of Temperature on Long Term Float Life

