

### 12SB45WHR (12V 48Wh)

#### SPECIFICATIONS

Nominal Voltage (V) 12V

#### Nominal Capacity

10 min rate (290W to 9.60V)	48Wh
20 hour rate (0.45A to 10.50V)	9Ah
1C (9A to 9.60V)	5.7Ah
3C (27A to 9.60V)	3.6Ah

Weight Approx. 2.7kg (5.94lbs)

Internal Resistance (@1kHz) Approx. 14mΩ

#### Maximum Discharge Current

For 5 seconds 135A

#### Charging Methods @25°C (77°F)

##### Standby Use:

Float Charging Voltage	13.50V to 13.80V
Coefficient -3.0mV/°C/Cell	
Maximum Charging Current	2.7A

#### Operating Temperature Range

Charge	-15°C (5°F) to +40°C (104°F)
Discharge	-15°C (5°F) to +50°C (122°F)
Storage	-15°C (5°F) to +40°C (104°F)

#### Charge Retention (Shelf Life) @20°C (68°F)

1 month	92%
3 months	90%
6 months	80%

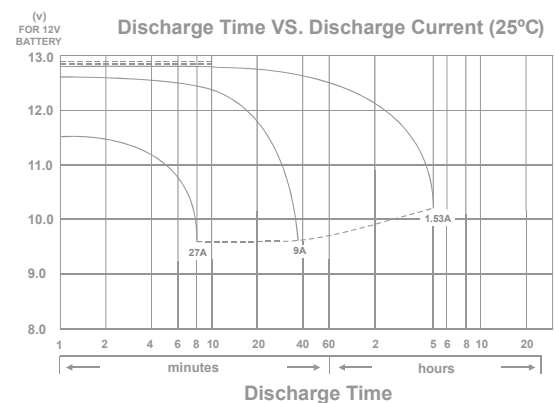
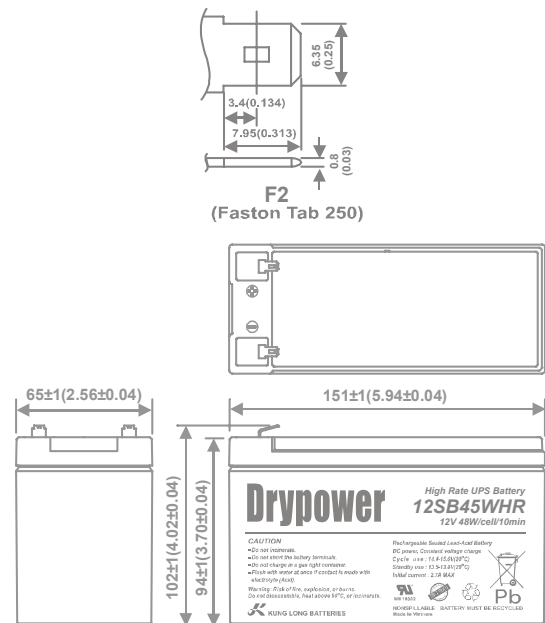
Case Material ABS

Terminal F2 (Faston Tab 250)

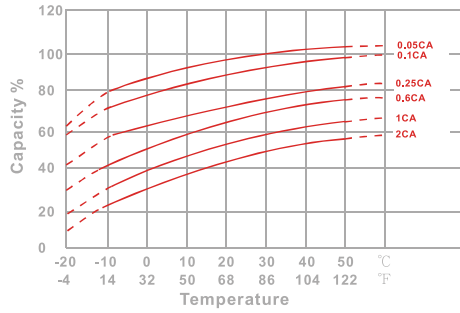


#### DIMENSIONS

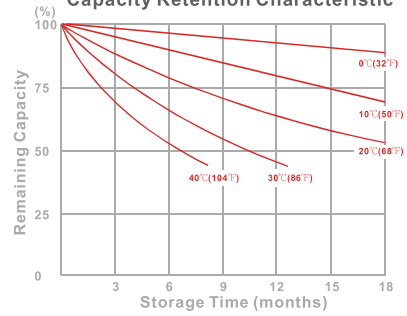
mm (inch)



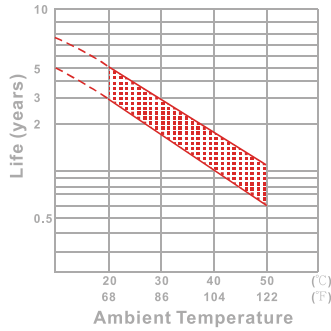
**Effect of Temperature on Capacity 25°C(77°F)**



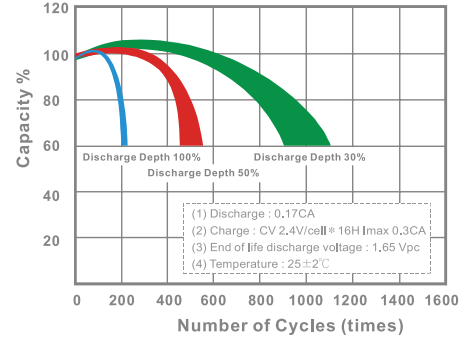
**Capacity Retention Characteristic**



**Trickle (or float) Service Life**



**Cycle Service Life**



**- PERFORMANCE DATA**

**Discharge Rates in Watts to Various End Voltages at 25°C(77°F)**

Time	End Voltage	1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
5	min	342	361	388	407	419	427	448
10	min	219	234	252	264	271	277	290
15	min	181	187	194	200	204	208	216
30	min	94.7	97.3	102	106	107	108	114
60	min	59.8	62.4	64.2	65.8	66.7	67.6	68.8
120	min	32.4	33.4	34.1	34.9	35.2	35.4	35.7
180	min	25.2	26.1	26.9	27.7	28.0	28.5	29.1
240	min	20.4	21.2	21.8	22.4	22.7	23.1	23.5
300	min	17.3	17.9	18.3	18.6	18.7	18.9	19.1
600	min	9.73	10.1	10.3	10.5	10.6	10.7	10.8
1200	min	5.12	5.29	5.41	5.44	5.46	5.48	5.51

**- Discharge Rates in Amperes to Various End Voltages at 25°C(77°F)**

Time	End Voltage	1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
5	min	30.4	32.6	35.0	36.7	37.4	38.5	40.3
10	min	19.1	20.4	21.9	22.9	23.4	24.1	25.2
15	min	14.3	14.9	15.8	16.5	16.8	17.3	18.0
30	min	8.09	8.45	8.93	9.35	9.54	9.77	10.2
60	min	5.17	5.29	5.37	5.45	5.48	5.52	5.57
120	min	2.63	2.72	2.78	2.84	2.86	2.89	2.93
180	min	2.12	2.18	2.23	2.27	2.29	2.31	2.34
240	min	1.69	1.74	1.77	1.80	1.81	1.82	1.83
300	min	1.46	1.51	1.53	1.55	1.56	1.57	1.58
600	min	0.827	0.841	0.855	0.866	0.871	0.877	0.884
1200	min	0.427	0.442	0.451	0.456	0.459	0.462	0.466

All data on the spec. sheet is an average value:

The tolerance range :  $X < 6\text{min}$ (+15%~-15%),  $6\text{min} \leq X < 10\text{min}$ (+12%~-12%),  $10\text{min} \leq X < 60\text{min}$ (+8%~-8%),  $X \geq 60\text{min}$ (+5%~-5%)

Performance may vary depending on application. All specifications are correct at time of creation. All specifications and operation conditions contained in this datasheet are subject to change or improvement without prior notice to the user. This data is for evaluation purposes only. No guarantee is intended or implied by this data. For clarification and updated information, please contact us.