

### 12SB20C (12V 20Ah)

#### SPECIFICATIONS

Nominal Voltage (V) 12V

#### Nominal Capacity

20 hour rate (1.0A to 10.50V)	20Ah
10 hour rate (1.9A to 10.50V)	19Ah
5 hour rate (3.4A to 10.20V)	17Ah
1C (20A to 9.60V)	12.67Ah
3C (60A to 9.60V)	8Ah

Weight Approx. 6.08kg (13.38lbs)

Internal Resistance (@1kHz) Approx. 10mΩ

Maximum Discharge Current For 5 seconds 300A

#### Charging Methods @25°C (77°F)

**Cycle Use:**  
 Charging Voltage 14.4V to 15.0V  
 Coefficient -5.0mV/°C/Cell  
 Maximum Charging Current 6A

**Standby Use:**  
 Float Charging Voltage 13.50V to 13.80V  
 Coefficient -3.0mV/°C/Cell

#### 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)

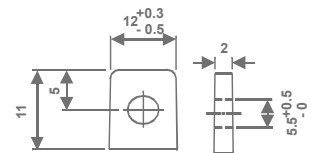
1 month	92%
3 months	90%
6 months	80%

Case Material ABS

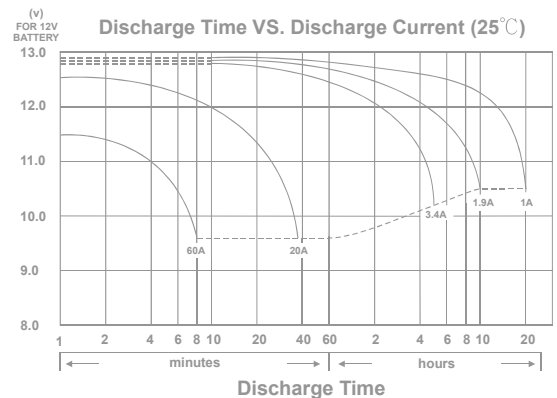
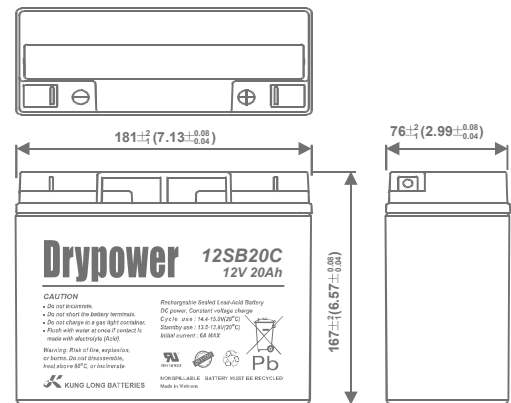
Terminal F3



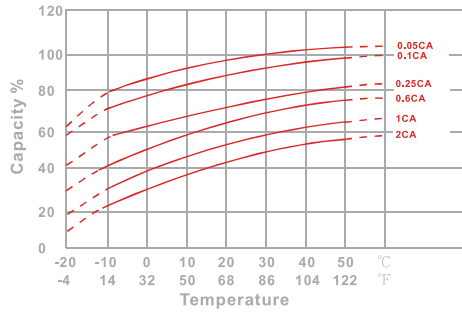
#### DIMENSIONS mm (inch)



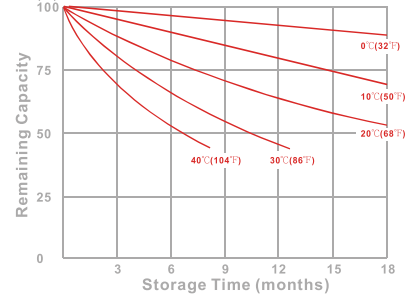
F3 (M5 Bolts)



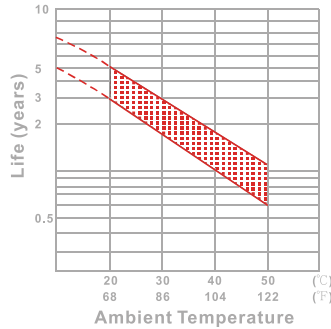
**Effect of Temperature on Capacity 25°C(77°F)**



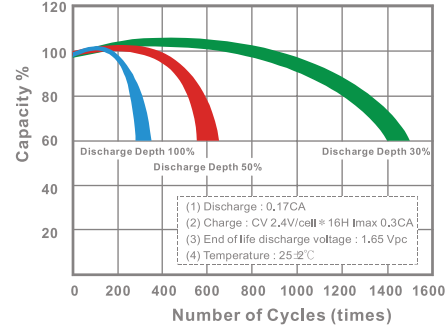
**Capacity Retention Characteristic**



**Trickle (or float) Service Life**



**Cycle Service Life**



**- PERFORMANCE DATA**

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

End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
Time	min	648	750	818	860	871	884	896
5	min	463	522	566	592	599	608	615
10	min	387	433	473	491	496	501	506
15	min	209	223	239	248	251	254	256
30	min	133	139	144	148	149	151	153
60	min	73.2	76.4	78.2	80.7	81.3	82.0	82.9
120	min	57.2	59.3	60.7	61.9	62.3	62.8	63.4
180	min	45.8	47.6	48.7	49.6	49.9	50.3	50.8
240	min	39.9	41.3	42.0	42.6	42.8	43.1	43.5
300	min	23.2	23.9	24.4	24.8	24.9	25.1	25.3
600	min	12.3	12.7	13.0	13.2	13.3	13.4	13.5
1200	min							

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

End Voltage		1.85V	1.80V	1.75V	1.70V	1.67V	1.65V	1.60V
Time	min	68.2	73.9	77.5	80.7	82.0	83.4	85.8
5	min	45.8	48.9	51.4	53.5	54.4	55.4	57.0
10	min	34.7	37.3	39.0	40.5	41.1	41.7	42.6
15	min	18.5	20.0	21.1	22.0	22.2	22.6	23.2
30	min	11.1	11.7	12.2	12.6	12.7	12.9	13.1
60	min	6.25	6.47	6.61	6.73	6.77	6.82	6.89
120	min	4.73	4.90	5.00	5.08	5.11	5.15	5.21
180	min	3.88	3.97	4.04	4.09	4.11	4.14	4.17
240	min	3.41	3.48	3.53	3.57	3.58	3.60	3.62
300	min	1.97	2.00	2.02	2.04	2.05	2.06	2.07
600	min	1.00	1.03	1.05	1.07	1.08	1.09	1.10
1200	min							

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.