

## RECHARGEABLE AGM SEALED LEAD ACID BATTERY

### SPECIFICATIONS

<b>Nominal Voltage</b>	12V	
<b>Nominal Capacity</b>		
<b>20 hour rate</b> (1.0A to 10.50V)	20Ah	
<b>10 hour rate</b> (1.9A to 10.50V)	19Ah	
<b>5 hour rate</b> (3.4A to 10.20V)	17Ah	
<b>1C</b> (20A to 9.60V)	11.33Ah	
<b>3C</b> (60A to 9.60V)	8Ah	
<b>Weight</b>	Approx. 5.95kg	
<b>Internal Resistance</b> (at 1KHz)	Approx. 10mΩ	
<b>Maximum Discharge Current</b> (5 secs)	300A	
<b>Charge Methods at 25°C</b>		
<b>Cycle Use</b>		
Charging Voltage	14.4V to 15.0V	
Coefficient -5.0mV/°C/Cell		
Maximum Charging Current	6A	
<b>Standby Use</b>		
Float Charging Voltage	13.5V to 13.8V	
Coefficient -3.0mV/°C/Cell		
<b>Operating Temperature Range</b>		
<b>Charge</b>	-15°C to 40°C	
<b>Discharge</b>	-15°C to 50°C	
<b>Storage</b>	-15°C to 40°C	
<b>Charge Retention (Shelf Life) at 20°C</b>		
<b>1 month</b>	92%	
<b>3 months</b>	90%	
<b>6 months</b>	80%	

<b>Case Material</b>	ABS
<b>Termination</b>	F3 (M5 Bolts)
<b>Design Life</b>	3-5 years

**Classified as a non-spillable battery. Approved for transportation by:**

- Air (IATA/ICAO provision 67)
- Road (DOT-CFR-HMR49)
- Sea (per IMDG amendment 27)

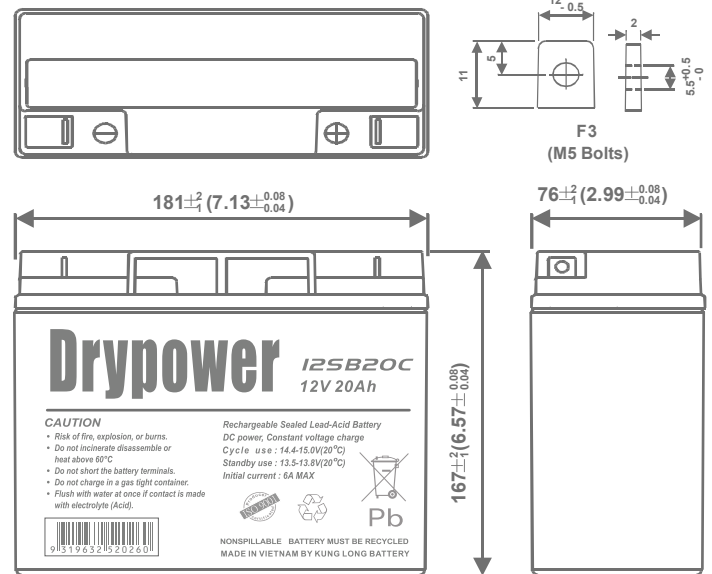


**Barcode**



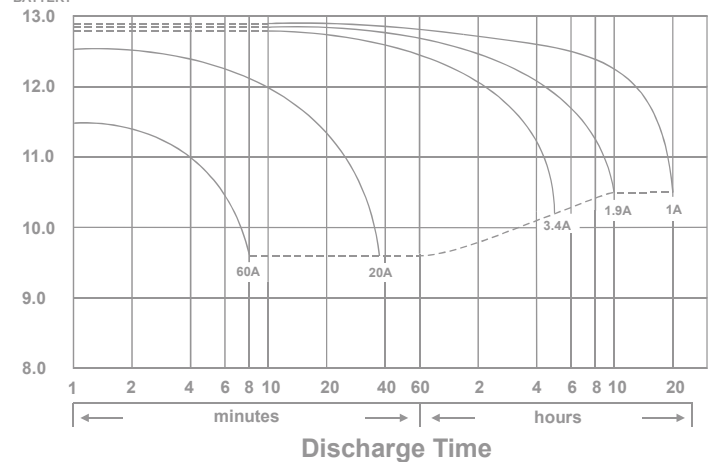
### DIMENSIONS

mm (inch)



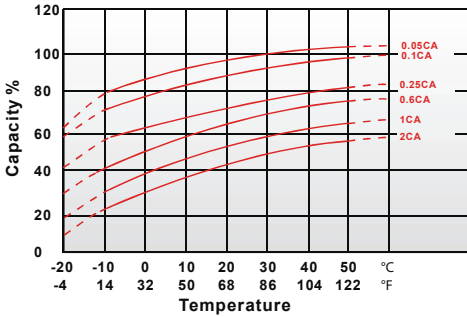
(V)  
FOR 12V  
BATTERY

### Discharge Time VS. Discharge Current (25°C)

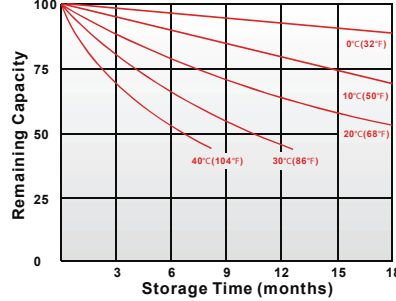


## CHARACTERISTICS CHARTS

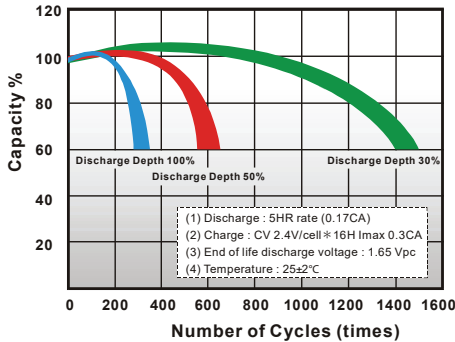
Effect of Temperature on Capacity 25°C (77°F)



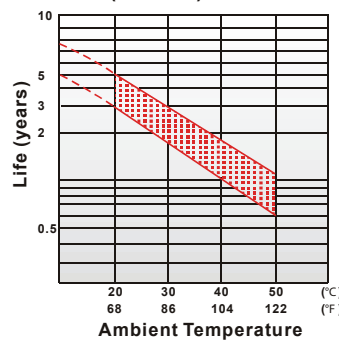
Capacity Retention Characteristic



Cycle Service Life



Trickle (or float) Service Life



## FEATURES & BENEFITS

- ◆ Industry leading **99.99% pure lead content** for superior service life and dependable performance.
- ◆ Maintenance free technology and non-spillable design.
- ◆ Excellent charge retention in storage.
- ◆ Higher percentage of tin content compared with the industry standard. Tin extends battery standby life by minimising sulphation (corrosion) especially at higher temperatures.
- ◆ Manufactured by Kung Long Battery (KLB) at facilities in Taiwan and Vietnam.

KLB is a leading manufacturer and complies with relevant international quality standards including **ISO9001**, **CE ETL9000**, **UL1989**, **OHSAS18001** and **ISO17025**.

KLB supports Green Sustainable supply chain practices.



## - 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	108	125	136	143	145	147	149
5	min	77.1	87.0	94.3	98.7	99.8	101	102
10	min	64.5	72.2	78.8	81.8	82.6	83.5	84.4
15	min	34.8	37.2	39.8	41.3	41.8	42.3	42.7
30	min	22.2	23.2	24.0	24.7	24.8	25.2	25.5
60	min	12.2	12.7	13.0	13.5	13.6	13.7	13.8
120	min	9.53	9.88	10.1	10.3	10.4	10.5	10.6
180	min	7.63	7.93	8.12	8.27	8.32	8.38	8.46
240	min	6.65	6.88	7.00	7.10	7.13	7.18	7.24
300	min	3.87	3.98	4.07	4.13	4.15	4.19	4.22
600	min	2.05	2.12	2.17	2.20	2.22	2.23	2.25
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.