



2V

475Ah

SLA

AGM

## 2SB480HP-FR

Rechargeable AGM Sealed Lead Acid Battery

### SPECIFICATIONS

Nominal Voltage	2V	
Nominal Capacity		
20 hour rate (23.75A to 1.75V)	475Ah	
10 hour rate (44.0A to 1.80V)	440Ah	
5 hour rate (74.8A to 1.70V)	374Ah	
1 hour rate (264A to 1.60V)	264Ah	
1C (440A to 1.60V)	220Ah	
Weight	Approx. 29.7kg	
Internal Resistance (at 1KHz)	Approx. 0.4mΩ	
Maximum Discharge Current (5 secs)	2640A	
Charge Methods at 25°C		
<b>Cycle Use</b>		
Charging Voltage	2.33V to 2.36V	
Coefficient -5.0mV/°C/Cell		
Maximum Charging Current	142.5A	
<b>Standby Use</b>		
Float Charging Voltage	2.21V to 2.25V	
Coefficient -3.0mV/°C/Cell		
Operating Temperature Range		
<b>Charge</b>	-15°C to 40°C	
<b>Discharge</b>	-15°C to 50°C	
<b>Storage</b>	-15°C to 40°C	
Charge Retention (Shelf Life) at 20°C		
1 month	98%	
3 months	94%	
6 months	85%	
Case Material	UL94 V-0 Flame Retardant	
Termination	F18 (M8 Bolt)	

#### Description of Torque Value of Hardware for the Terminals

Recommended Torque Value M8: 12 N-m (122kgf-cm)  
Max. Allowable Torque Value M8: 15 N-m (153kgf-cm)

**Design Life** 12-15 Years (at 20°C)

Classified as a non-spillable battery.

Approved for transportation by:

- Air (IATA/ICAO provision A67)
- Road
- Sea (per IMDG Special Provision 238)



Barcode

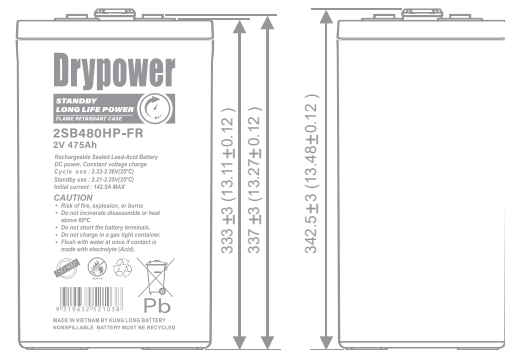
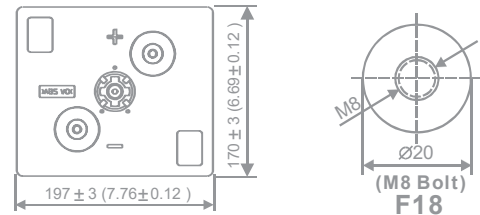


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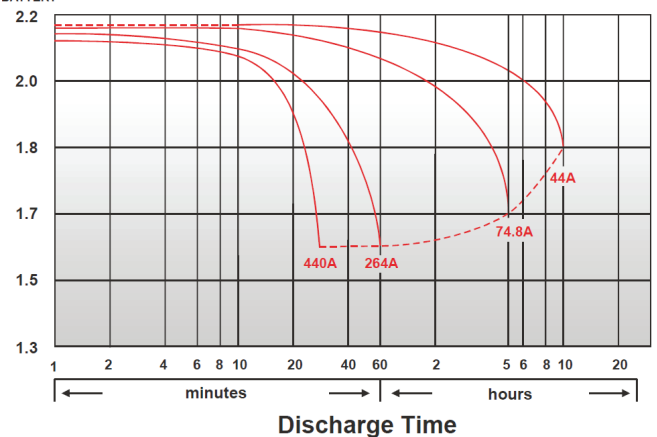
### DIMENSIONS

mm (inch)



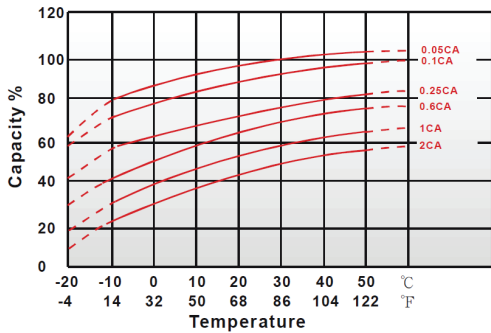
(V)  
FOR 2V  
BATTERY

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

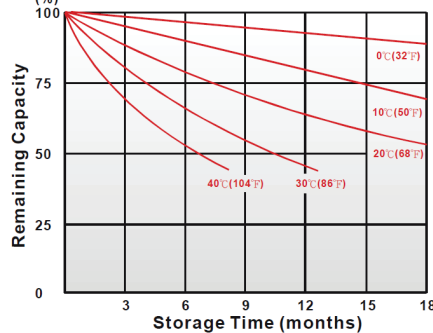


### CHARACTERISTICS CHARTS

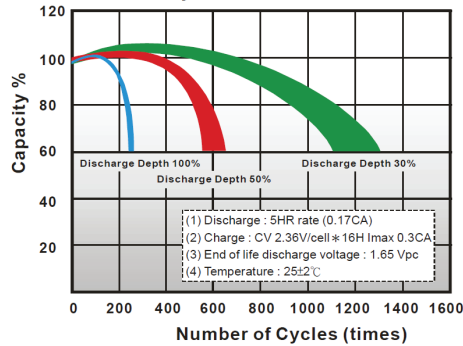
Effect of Temperature on Capacity 25°C (77°F)



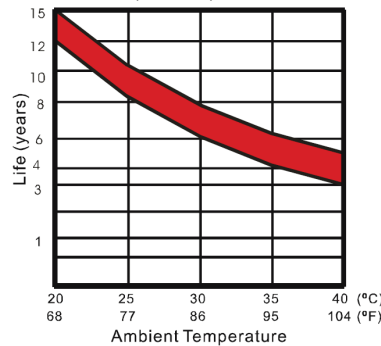
Capacity Retention Characteristic



Cycle Service Life



Trickle (or float) Service Life



### FEATURES & BENEFITS

- ◆ Industry leading 99.99% pure lead content for superior service life and dependable performance.
- ◆ Long service life to reduce maintenance and logistical costs across telecom, utilities and off-grid applications.
- ◆ Minimises sulphation with a thicker plate design and higher percentage of tin content to maximise battery standby life.
- ◆ High rate discharge capable to ensure reliable performance.
- ◆ Maintenance free technology and non-spillable design.
- ◆ 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	1.65V	1.60V
Time							
20	min	657	731	803	864	922	964
30	min	626	698	750	791	828	847
60	min	416	451	477	494	508	517
120	min	264	280	289	298	306	313
180	min	205	216	223	230	236	241
240	min	163	175	181	187	192	196
300	min	145	154	159	163	166	169
360	min	125	132	135	138	141	143
480	min	104	109	112	114	116	117
600	min	90.7	93.8	95.3	96.6	97.7	98.6
1200	min	46.5	48.2	49.3	50.2	50.8	51.2

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

End Voltage		1.85V	1.80V	1.75V	1.70V	1.65V	1.60V
Time							
20	min	368	429	472	509	538	561
30	min	309	361	398	429	453	469
60	min	195	219	238	254	267	277
120	min	126	136	145	153	160	166
180	min	96.7	104	110	115	119	123
240	min	80.5	85.2	89.4	92.6	95.2	97.2
300	min	67.9	72.3	76	78.9	81.1	82.9
360	min	59.80	63.1	65.7	68.1	70.1	71.5
480	min	50.7	52.6	54	55.2	56.3	57.1
600	min	43.3	44.7	45.9	46.9	47.7	48.3
1200	min	22.6	23.3	23.9	24.5	25	25.4

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

The tolerance range : X < 6min (+15%~-15%), 6min ≤ X < 10min (+12%~-12%), 10min ≤ X < 60min (+8%~-8%), X ≥ 60min (+5%~-5%)

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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.