



12V

160Ah

SLA

CYCLIC  
AGM

## 12SB160CL-FR

Rechargeable AGM Sealed Lead Acid Battery

### SPECIFICATIONS

Nominal Voltage	12V	
Nominal Capacity		
20 hour rate	(8.01A to 9.90V)	160Ah
10 hour rate	(15.0A to 10.80V)	150Ah
5 hour rate	(25.5A to 10.20V)	127.5Ah
1 hour rate	(90A to 9.60V)	90Ah
1C	(150A to 9.60V)	95Ah
Weight	Approx. 46.0kg	
Internal Resistance (at 1KHz)	Approx. 4mΩ	
Maximum Discharge Current (5 secs)	1500A	
Charge Methods at 25°C		
Cycle Use		
Charging Voltage	14.4V to 15.0V	
Coefficient -5.0mV/°C/Cell		
Maximum Charging Current	48A	
Standby Use		
Float Charging Voltage	13.5V to 13.8V	
Coefficient -3.0mV/°C/Cell		
Operating Temperature Range		
Charge	-15°C to 40°C	
Discharge	-15°C to 50°C	
Storage	-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	F8 (M6 Bolt)	

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

Recommended Torque Value M6: 7 N-m (71kgf-cm)  
Max. Allowable Torque Value M6: 9 N-m (92kgf-cm)

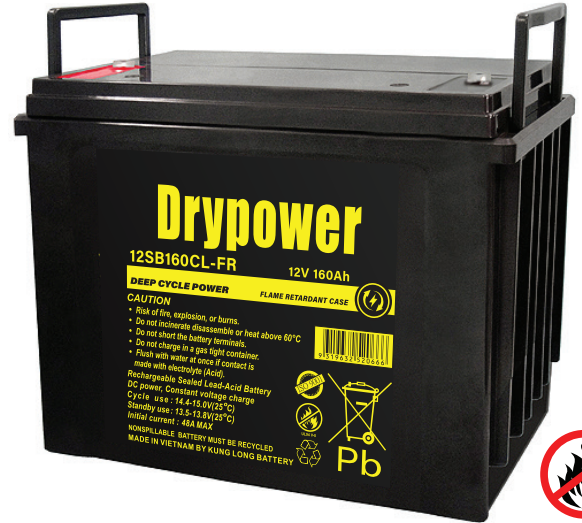
**Design Life** 12 years

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

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

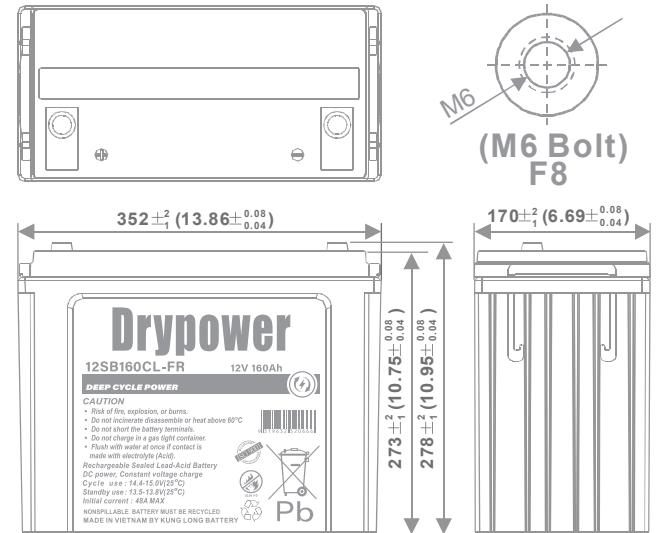


Barcode

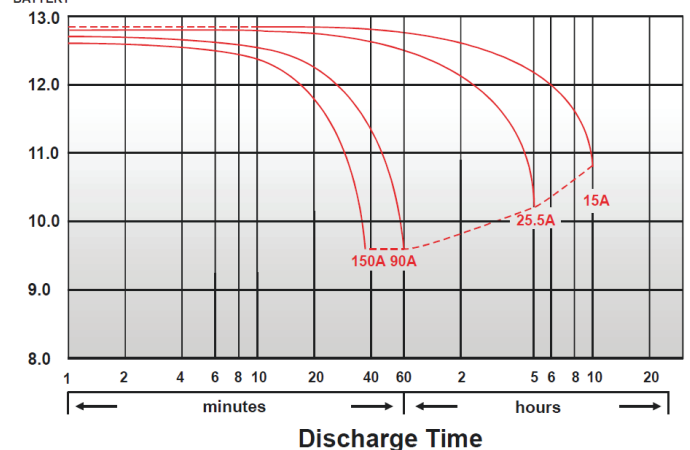


### DIMENSIONS

mm (inch)

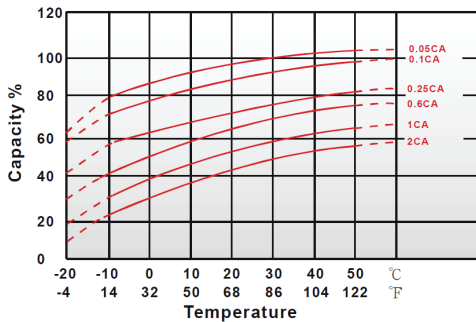


### Discharge Time VS. Discharge Current (25°C)

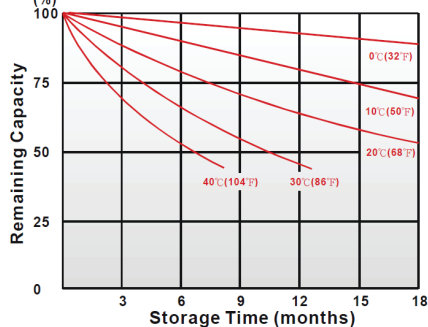


### CHARACTERISTICS CHARTS

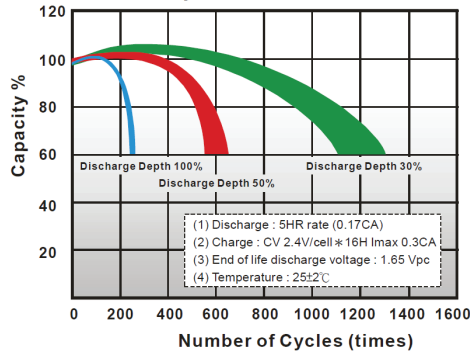
Effect of Temperature on Capacity 25°C (77°F)



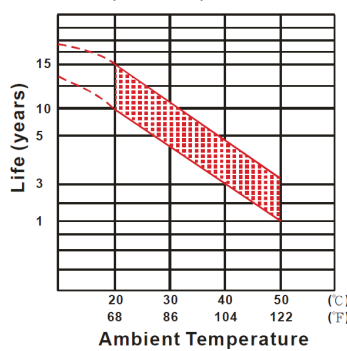
Capacity Retention Characteristic



Cycle Service Life



Trickle (or float) Service Life



### FEATURES & BENEFITS

- ◆ Industry leading 99.99% pure lead content for superior service life and dependable performance.
- ◆ Special grid frame alloy design with outstanding anti-corrosion performance.
- ◆ Maintenance free technology and non-spillable design.
- ◆ Suitable for use in any orientation (except inverted) for use in hard to reach locations.
- ◆ 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								
5	min	561	626	682	731	755	779	826
10	min	501	546	572	597	609	622	645
15	min	443	468	487	505	513	522	537
30	min	259	272	282	292	296	300	308
60	min	155	164	170	174	176	177	179
120	min	83.8	89	91.8	94.2	95.2	96.5	98.5
180	min	68.7	73.2	75.5	77.7	78.7	79.8	81.3
240	min	56	59	60.8	62.2	62.7	63.3	64.3
300	min	48.2	50.2	51.5	52.7	53.00	53.5	54.2
600	min	28.5	29.7	30.7	31.5	31.70	32.2	32.7
1200	min	15.1	15.6	16	16.4	16.5	16.7	16.8

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								
5	min	296	373	417	446	459	472	490
10	min	245	276	303	325	335	346	363
15	min	218	246	265	278	283	289	306
30	min	119	131	141	149	152	155	160
60	min	70.7	79.6	82.8	85.2	86.5	87.9	90
120	min	37.5	44.2	45.9	47.1	47.6	48.2	49.1
180	min	32.6	36.2	37.5	38.6	39.1	39.6	40.2
240	min	25.80	28.7	29.8	30.7	31	31.3	31.7
300	min	23.9	24.8	25.5	26.1	26.2	26.6	26.9
600	min	14.4	15	15.3	15.5	15.6	15.8	15.9
1200	min	7.43	7.62	7.76	7.9	7.95	8.01	8.06

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%)

Aug2020

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.