



12V

40Ah

SLA

CYCLIC  
AGM

## 12SB40CL

Rechargeable AGM Sealed Lead Acid Battery

### SPECIFICATIONS

Nominal Voltage	12V	
Nominal Capacity		
20 hour rate (2.0A to 10.50V)	40Ah	
10 hour rate (3.8A to 10.50V)	38Ah	
5 hour rate (6.8A to 10.20V)	34Ah	
1C (40A to 9.60V)	22.67Ah	
3C (120A to 9.60V)	16Ah	
Weight	Approx. 13.4kg	
Internal Resistance (at 1KHz)	Approx. 7.5mΩ	
Maximum Discharge Current (5 secs)	480A	
Charge Methods at 25°C		
<b>Cycle Use</b>		
Charging Voltage	14.4V to 15.0V	
Coefficient	-5.0mV/°C/Cell	
Maximum Charging Current	12A	
<b>Standby Use</b>		
Float Charging Voltage	13.5V to 13.8V	
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	92%	
3 months	90%	
6 months	80%	
Case Material	ABS UL94 HB	
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      3-5 years

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

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



Barcode

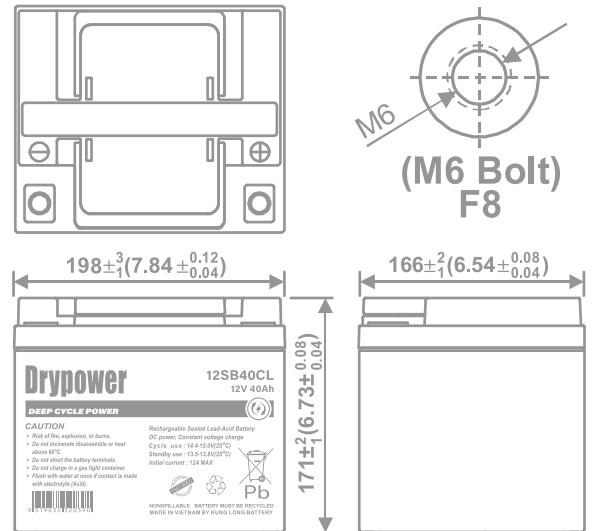


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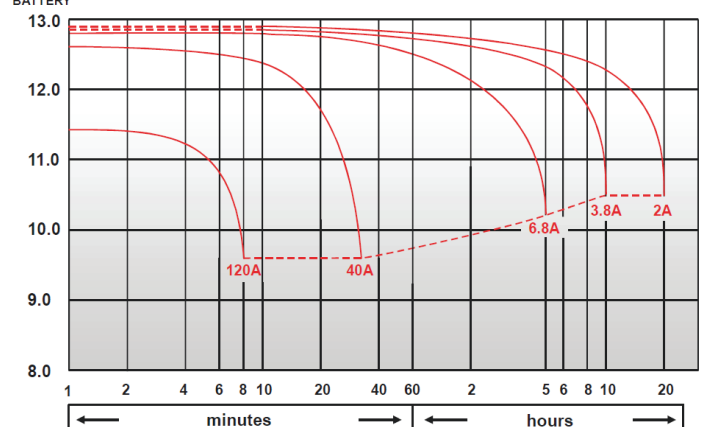


### DIMENSIONS

mm (inch)

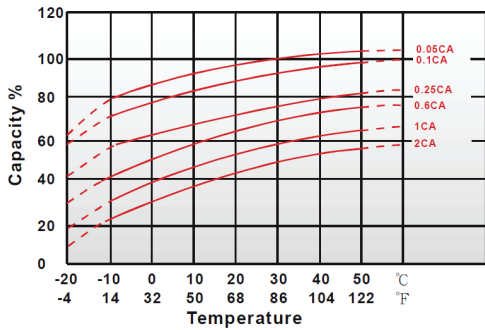


### Discharge Time VS. Discharge Current (25°C)

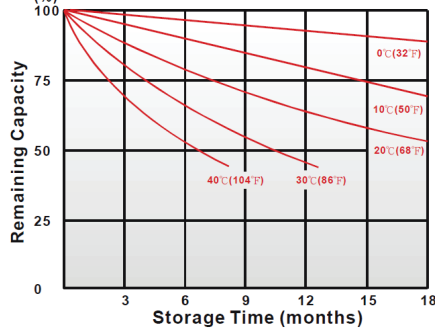


## CHARACTERISTICS CHARTS

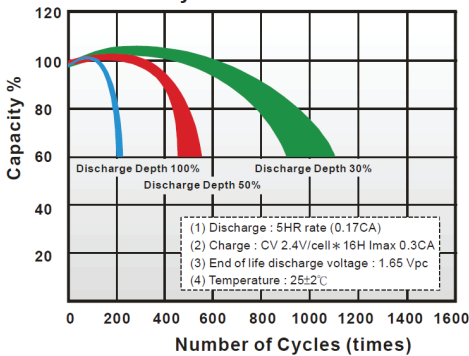
Effect of Temperature on Capacity 25°C (77°F)



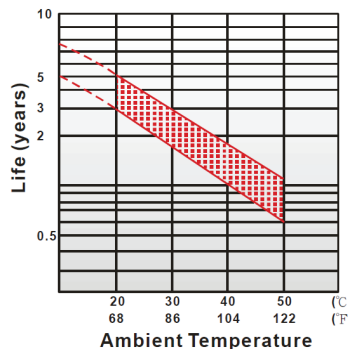
Capacity Retention Characteristic



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
6	min	249	266	281	290	293	295	299
8	min	205	218	231	237	239	241	244
10	min	178	189	198	204	205	207	209
15	min	135	142	149	152	153	154	156
20	min	112	118	123	125	126	127	128
30	min	84.8	88.6	91.8	93.5	94.2	94.6	95.5
60	min	62.9	65.3	66.6	67.1	67.3	67.6	67.9
90	min	43.5	45.2	46	46.3	46.5	46.7	46.9
120	min	33.5	34.8	35.4	35.6	35.8	35.9	36.1
180	min	23.3	24.1	24.5	24.7	24.7	24.8	24.9
240	min	18	18.6	18.9	19	19.1	19.1	19.2
300	min	14.6	15.2	15.4	15.5	15.5	15.6	15.7
480	min	9.56	9.88	10	10.1	10.10	10.1	10.2
600	min	6.93	7.15	7.35	7.55	7.63	7.73	7.87
1200	min	3.55	3.75	3.93	4.08	4.15	4.23	4.35

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
6	min	141	150	159	164	166	167	169
8	min	114	121	128	132	133	134	135
10	min	97	103	108	111	112	113	114
15	min	72.1	76.1	79.6	81.4	82.2	82.6	83.5
20	min	58.5	61.4	64	65.4	65.9	66.2	66.9
30	min	43.5	45.5	47.1	48	48.3	48.5	49
60	min	31.7	32.9	33.6	33.8	33.9	34.1	34.2
90	min	21.9	22.7	23.1	23.3	23.4	23.5	23.6
120	min	16.8	17.5	17.8	17.9	18	18	18.1
180	min	11.6	12	12.2	12.3	12.4	12.4	12.5
240	min	8.94	9.25	9.4	9.47	9.5	9.53	9.57
300	min	7.29	7.54	7.66	7.72	7.74	7.77	7.8
480	min	4.75	4.91	4.98	5.01	5.03	5.04	5.06
600	min	3.92	4.04	4.1	4.13	4.14	4.15	4.17
1200	min	2.08	2.14	2.17	2.19	2.19	2.2	2.2

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.