



12V

505W

SLA

UPS
AGM

12SB505WHR-FR

Rechargeable AGM Sealed Lead Acid Battery

SPECIFICATIONS

Nominal Voltage	12V
Nominal Power	
15 min rate	505W/cell to 1.67V/cell
Nominal Capacity	
20 hour rate (6.50A to 10.50V)	130Ah
8 hour rate (14.0A to 10.50V)	111.8Ah
5 hour rate (22.1A to 10.20V)	110.5Ah
Weight	Approx. 42.3kg
Internal Resistance (at 1KHz)	Approx. 4mΩ
Maximum Discharge Current (5 secs)	1300A
Short Circuit Current	3183A
Charge Methods at 25°C	
Maximum Charging Current	39.0A
Boost Charging Voltage	14.1V to 14.4V
Boost Charge Time	8-9 hrs
Float Charging Voltage	13.5V to 13.65V
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	96%
6 months	94%

Case Material: UL94 V-0 Flame Retardant

Termination: F8 (M6 Bolt)

Torque Value of Terminal Hardware

Recommended Torque Value	M6: 7 N-m (71kgf-cm)
Max. Allowable Torque Value	M6: 10 N-m (102kgf-cm)

Design Life: 10-12 years

Classified as a non-spillable battery.

Approved for transportation by:

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



Barcode



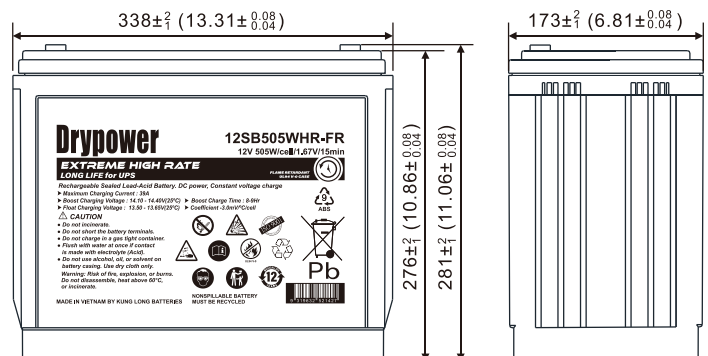
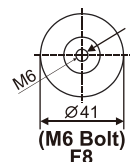
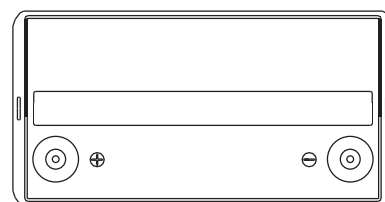
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UL94 V-0
FLAME RETARDANT
CASE

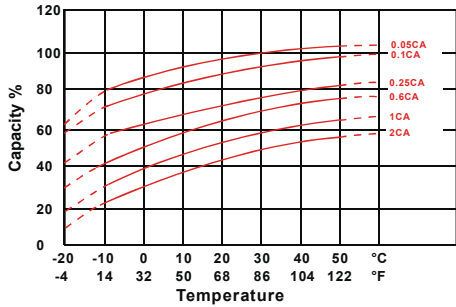
DIMENSIONS

mm (inch)

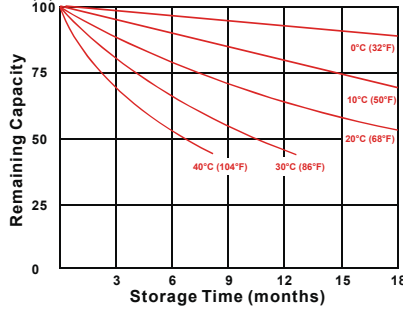


CHARACTERISTICS CHARTS

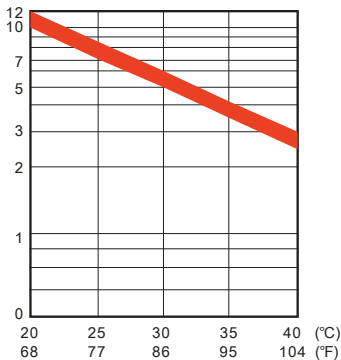
Effect of Temperature on Capacity 25°C (77°F)



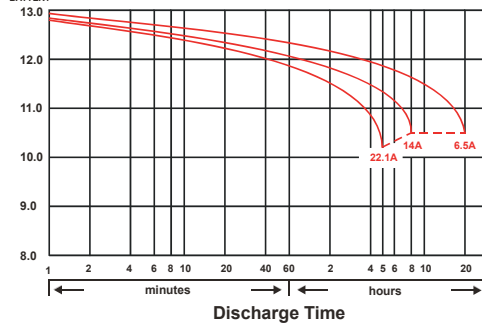
Capacity Retention Characteristic



Trickle (or float) Service Life



Discharge Time VS. Discharge Current (25°C)



FEATURES & BENEFITS

- ◆ Industry leading 99.99% pure lead content for superior service life and dependable performance.
- ◆ Specially formulated solder paste to ensure reliable power delivery.
- ◆ Maintenance free technology and non-spillable design.
- ◆ Special grid frame alloy design with outstanding anti-corrosion performance.
- ◆ 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
2	min	703	805	900	970	1035	1095	1145
4	min	665	735	795	835	885	925	950
5	min	618	683	740	797	837	872	883
6	min	600	665	718	745	770	790	810
8	min	525	577	620	662	700	720	735
10	min	487	542	587	605	615	623	628
15	min	379	433	479	505	508	511	514
20	min	327	354	377	393	403	411	417
30	min	252	271	281	287	291	295	297
40	min	206	216	223	228	230	232	234
45	min	200	209	216	221	224	227	230
60	min	118	127	134	139	142	144	146
90	min	91	105	113	116	119	121	123
120	min	78.3	82.5	85.4	87.3	88.5	89.7	90.5
180	min	50.5	57.1	63.6	64.5	65.2	65.7	66.2
240	min	46.5	48.3	49.8	50.6	50.9	51.2	51.5
300	min	42.1	43.3	44.1	44.3	44.5	44.7	44.9
480	min	24.6	25.8	26.8	27.8	28.6	29.2	29.6
1200	min	12.5	12.9	13.2	13.4	13.6	13.7	13.8

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
2	min	385	462	515	560	590	620	650
4	min	350	410	465	510	532	552	572
5	min	337	392	432	462	485	500	510
6	min	312	357	397	437	460	475	485
8	min	290	325	353	367	374	379	384
10	min	267	287	305	321	337	346	352
15	min	218	235	247	257	265	270	275
20	min	172	185	194	202	207	212	215
30	min	118	125	130	136	142	147	150
40	min	101	111	118	123	124	125	126
45	min	99.2	106	111	114	116	118	120
60	min	73.4	75.1	76.3	77.2	77.8	78.4	78.8
90	min	45.4	51.6	55.5	57.7	58.9	59.7	60.5
120	min	40	43.3	45.8	47.1	48.4	49.1	49.5
180	min	26.5	28.4	30.1	30.6	30.9	31.2	31.5
240	min	22.8	23.2	23.5	23.8	24	24.2	24.4
300	min	19.8	21	21.7	22.1	22.3	22.4	22.5
480	min	12.5	13.4	14	14.2	14.3	14.4	14.5
1200	min	6.65	6.75	6.79	6.81	6.82	6.83	6.84

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%)

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. Dec2023