LXR12-100 (12V100Ah)

LXR (Deep Cycle GEL,12 Volts) series is pure GEL battery with 12 years floating design life, it is ideal for standby or frequent cyclic discharge applications under extreme environments. By using strong grids, high purity lead and patented Gel electrolyte, the LXR series offers excellent recovery after deep discharge under frequent cyclic discharge use Suitable for solar, CATV, marine, RV and deep discharge UPS applications.

LEXRON

Cells Per Unit	6
Voltage Per Unit	12
Capacity	100Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 30.5 Kg
Max. Discharge Current	1000A (5 sec)
Internal Resistance	Approx. 7.5 mΩ
Operating Temperature Range	Disch.: -40°C~60°C Charge: -20°C~50 °C Storage: -40°C~60°C
Normal Operating Temperature Range	25°C±5°C
Float Charging Voltage	13.6 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current	20A
Equalization and Cycle Service	14.2 to 14.4VDC/unit Average at 25°C
Self Discharge	LEXRON Valve Regulated Lead Acid (VRLA) batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.
Terminal	Terminal M8
Container Material	A.B.S. UL94-HB

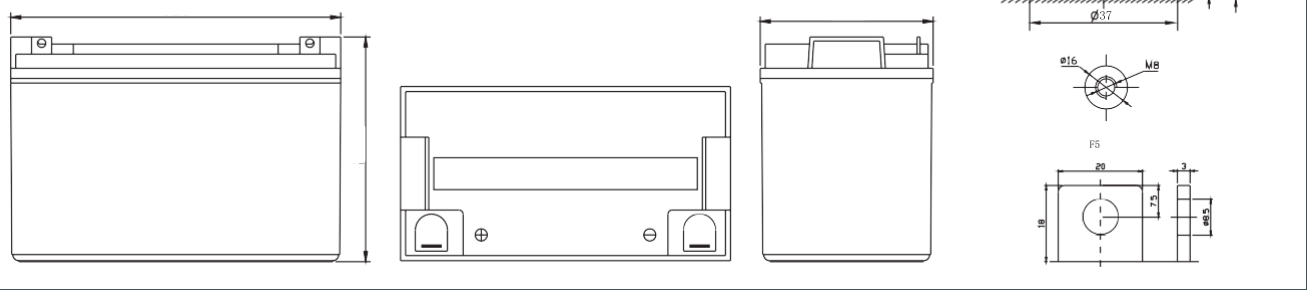
General Features

- Nanosilica colloidal electrolyte and high tin positive plate alloy design to enhance battery performance
- Relatively rich electrolyte, high temperature and low temperature performance is superior
- Long cycle life, excellent deep cycle discharge ability
- Excellent charge acceptance ability
- Precision sealing technology
- Long life

RoHS

Dimensions

Unit: mm Dimension: 330(L)×171(W)×219(H)



Constant Current Discharge Characteristics: A (25°C)(The capacity reaches the peak value after 5-20 cycles.)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	248.9	185.4	145.0	95.38	58.30	35.10	25.39	20.27	17.21	11.66	9.678	5.305
10.0V	241.7	176.4	142.1	93.80	58.03	34.84	25.30	20.18	17.11	11.56	9.585	5.209
10.2V	234.5	170.1	139.8	92.97	57.49	34.57	25.10	20.08	17.01	11.47	9.492	5.112
10.5V	213.1	158.9	134.7	93.17	56.96	34.31	25.00	19.89	16.81	11.37	9.399	5.000
10.8V	194.5	146.6	125.6	92.46	55.02	33.69	24.32	19.43	16.39	10.92	9.100	4.748
11.1V	168.0	132.5	114.0	87.39	52.27	32.20	23.25	18.49	15.69	10.46	8.831	4.468

Constant Power Discharge Characteristics: W (25°C)(The capacity reaches the peak value after 5-20 cycles.)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	2626	1974	1581	1070	673.7	413.7	302.9	241.6	205.3	139.2	115.7	63.61
10.0V	2574	1914	1556	1058	672.1	411.5	302.3	241.3	204.8	138.5	114.9	62.50
10.2V	2545	1863	1538	1061	666.9	409.0	301.0	240.8	204.1	137.6	113.9	61.35
10.5V	2344	1755	1485	1064	660.9	406.1	299.8	238.5	201.7	136.5	112.8	60.00
10.8V	2159	1637	1388	1057	641.9	400.9	291.6	233.1	196.7	131.0	109.2	56.97
11.1V	1919	1497	1264	1005	614.4	386.0	279.0	221.8	188.3	125.5	106.0	53.62

LXR12-100

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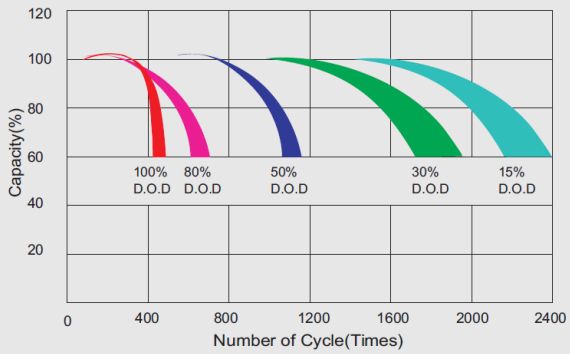
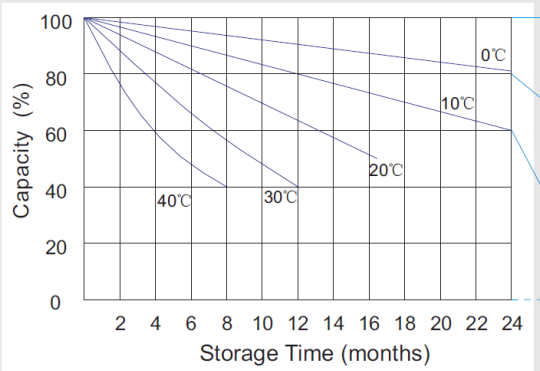
Life characteristics of cyclic use



Storage characteristic



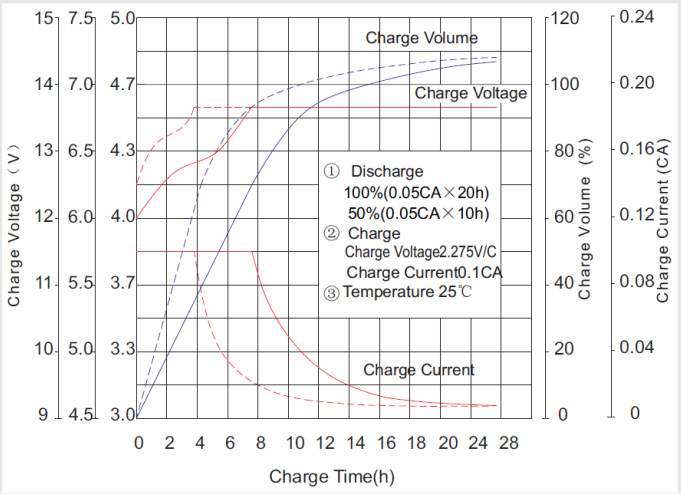
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is requires)

Supplementary charge required before use. This supplementary charge will help to recover the capacity and should be made as early as possible.

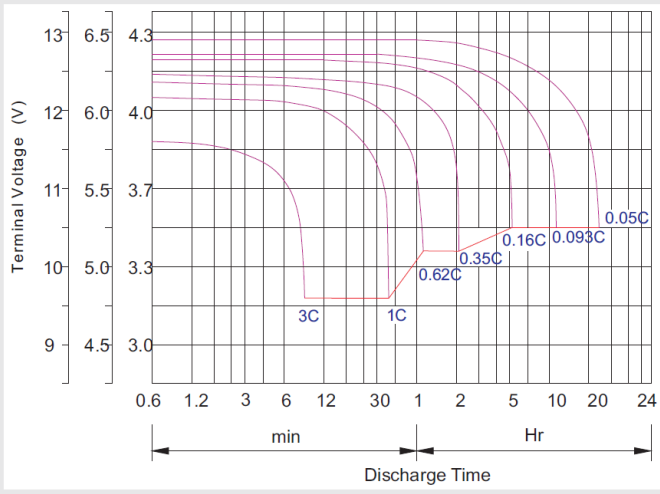
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

Supplementary charge and storage guidelines

Charge characteristic curve for cyclic use



Discharge characteristic curve



Capacity Factors With Different Temperature

Battery Type		-20℃	-10℃	0℃	5℃	10℃	20℃	25℃	30℃	40℃	45℃
GEL Battery	6V&12V	50%	70%	83%	85%	90%	98%	100%	102%	104%	105%
	2V	60%	75%	85%	88%	92%	99%	100%	103%	105%	106%
AGM Battery	6V&12V	46%	66%	76%	83%	90%	98%	100%	103%	107%	109%
	2V	55%	70%	80%	85%	92%	99%	100%	104%	108%	110%

Discharge Current VS. Discharge Voltage

Final Discharge Voltage V /cell	1.75V	1.70V	1.60V
Discharge Current (A)	（A）≤0.2C	0.2C< （A）<1.0C	（A）≥1.0C

Charge the batteries at least once every 3 months, if stored at 25°C.

Charging Method:

Constant Voltage	-0.2Cx2h+2.4-2.45V/cellx24h,Max. Current 0.2C
Constant Current	-0.2Cx2h+0.1Cx12h
Fast	-0.2Cx2h+0.2Cx6h

Bolt	M5	M6	M8
Terminal	F3 F4 F13 F18 T25 T26	F8 F11 F12-1 F15	F5 F9 F10 F12 F14 F16
Torque	6~7N-m	8~10N-m	10~12N-m

Maintenance & Cautions

Cycle service

※ Avoid battery over discharge, especially battery series connection use.

※ Charge with recommended voltage, ensure battery can be full recharged.

In general, recharge capacity should be 1.1-1.15 times disc. capacity

※ Effect of temperature on cycle charge voltage: -4mV/℃/Cell.

※ There are a number of factors that will affect the length of cyclic service.

The most significant are depth of discharge, ambient temperature,

discharge rate, and the manner in which the battery is recharged.

Generally speaking, the most important factor is depth of discharge.