

Technical Data: LP90-12



The LP90-12 is a general purpose battery with 12 years floating design life, meeting IEC, JIS, BS and Eurobat standards. With heavy duty, grid thickness plates, special additives, this series of batteries have a long life and reliable standby service life.

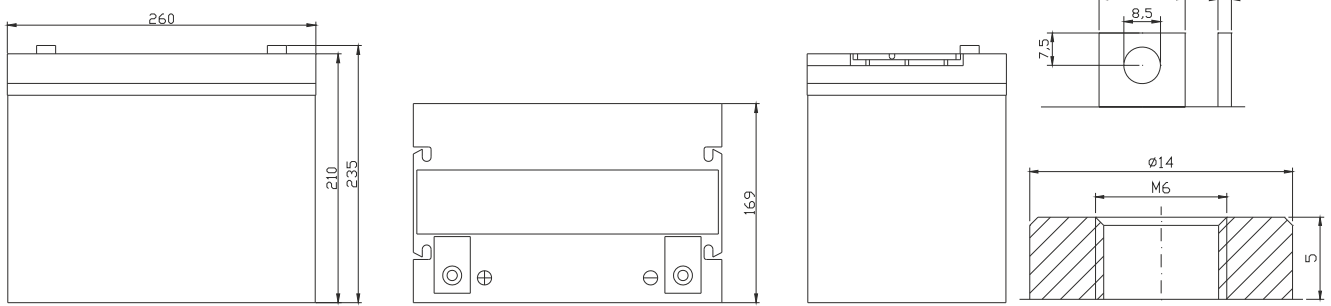
(Photo for reference only)

Specification:

Cells Per unit	6
Voltage per unit	12
Capacity	90Ah@20hr rate to 1.75V per cell @ 25°C
Weight	Approx. 23.5 Kg
Max. Discharge Current	750A (5Sec)
Internal Resistance	Approx. 5.2mΩ
Operating Temperature range	Discharge: -20°C ~ 60°C Charge: 0°C ~ 50°C Storage: -20°C ~ 60°C
Normal Operating Temp. Range	25°C ± 5°C
Float Charging Voltage	13.6 to 13.8VDC/ unit average at 25°C
Recomm. Max Charging Current	27A
Equalization and Cycle Service	14.6 to 14.8VDC/ unit average at 25°C
Self Discharge	Can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge battery before using.
Terminal	Terminal F12/F15
Container Material	A.B.S.(UL94-HB) Flammability resistance of U94-V1.

Dimensions

Unit: mm Dimension: 260(L)×169(W)×235(H)



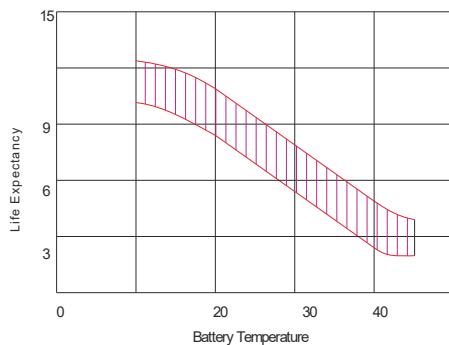
Constant Current Discharge Characteristics: A (25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	262.08	192.96	140.40	86.250	48.750	27.232	19.575	16.200	13.260	9.3163	7.8772	4.1658
10.0V	254.51	183.60	137.52	84.825	48.525	27.027	19.500	16.125	13.182	9.2406	7.8015	4.0901
10.2V	246.96	177.12	135.36	84.075	48.075	26.822	19.350	16.050	13.104	9.1649	7.7257	4.0144
10.5V	221.76	163.44	128.88	81.975	47.625	26.618	19.275	15.900	12.948	9.0891	7.6500	3.9386
10.8V	200.16	149.04	118.80	78.375	46.500	26.140	18.750	15.525	12.714	8.9376	7.5743	3.8629
11.1V	174.24	133.20	106.56	73.425	44.175	24.980	17.925	14.775	12.168	8.5589	7.3470	3.6356

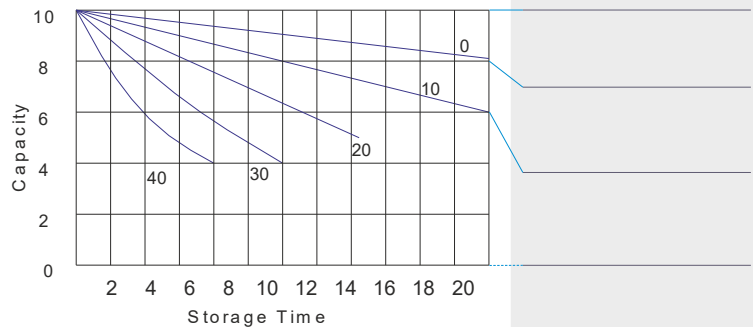
Constant Power Discharge Characteristics: W(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	2748.7	2051.9	1510.8	924.68	557.55	313.27	225.90	187.20	153.50	108.11	88.575	46.786
10.0V	2675.2	1959.8	1479.4	913.14	554.85	312.04	225.45	186.75	152.57	107.65	87.666	46.331
10.2V	2594.7	1894.5	1459.3	902.45	550.80	309.17	224.10	185.85	152.10	106.74	87.212	45.877
10.5V	2336.5	1750.6	1391.5	881.93	545.40	306.31	222.75	184.50	150.70	105.84	86.304	45.423
10.8V	2101.7	1589.5	1278.5	841.75	531.90	301.80	217.35	179.55	148.36	103.56	85.395	44.969
11.1V	1814.2	1411.6	1141.7	788.74	504.00	287.88	206.55	171.00	140.87	99.931	82.670	43.152

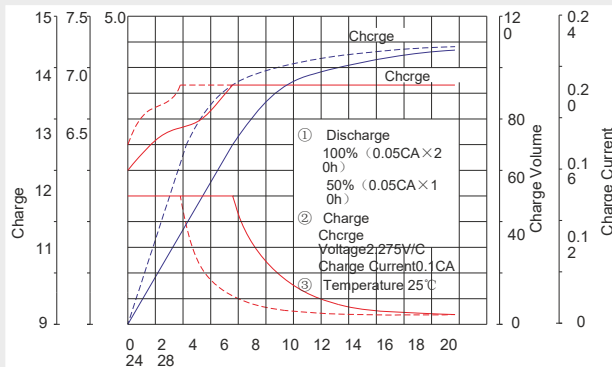
Effect of temperature on long term float life



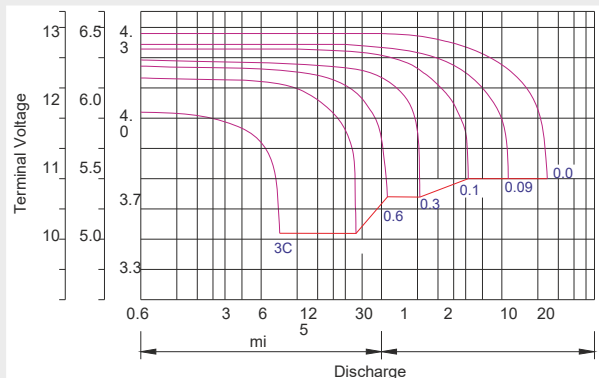
Storage



Charge characteristic Curve for standby use



Discharge characteristic Curve



Capacity Factors With Different Temperature

-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
50%	70%	83%	85%	90%	98%	100%	102%	104%	105%

Discharge Current VS. Discharger 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 6 months, if they are stored at 25°C