



# D12120 (12V12Ah)

D 12120 is a general purpose battery with 5 years floating design life, meet with IEC, JIS standard. With heavy duty grid, thickness plates, special additives, **D series** battery have long and reliable standby service life.



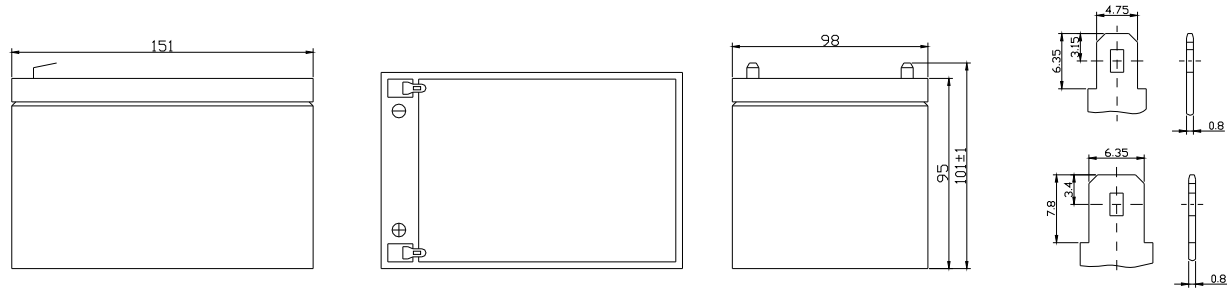
## Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	12Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 3.60 Kg
Max. Discharge Current	120 A (5 sec)
Internal Resistance	Approx. 16 mΩ
Operating Temperature Range	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
Normal Operating Temperature Range	25°C±5°C
Float charging Voltage	13.7 to 13.9 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	3.6 A
Equalization and Cycle Service	14.6 to 14.8 VDC/unit Average at 25°C
Self Discharge	<b>Dynamics</b> 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	Faston Tab 187(F1)/Faston tab 250(F2)
Constainer Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V2 can be available upon request.

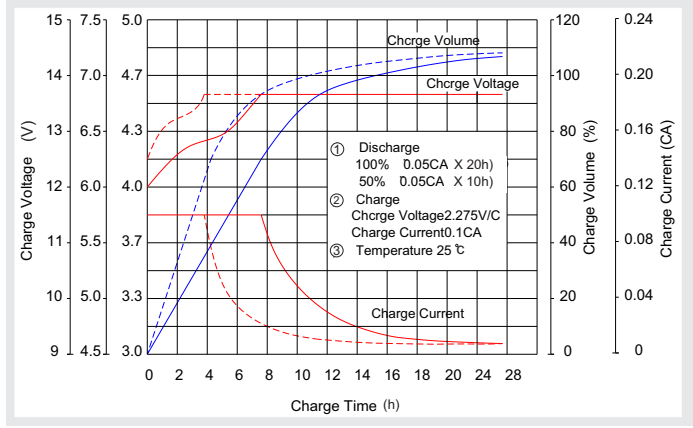


## Dimensions

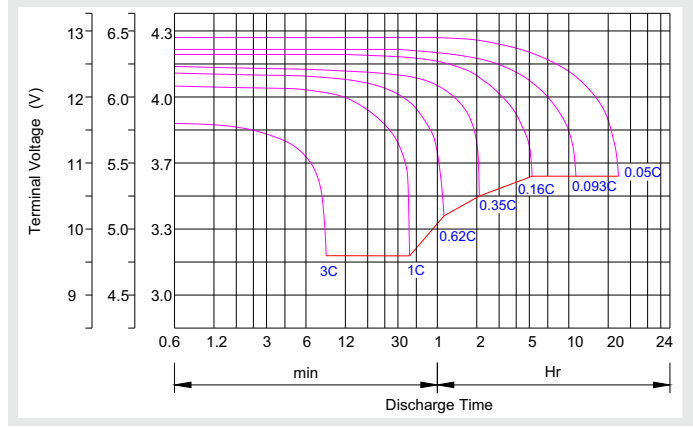
Unit: mm Dimension: 151(L)×98(W)×95(H)



### Charge characteristic Curve for standby use



### Discharge characteristic Curve



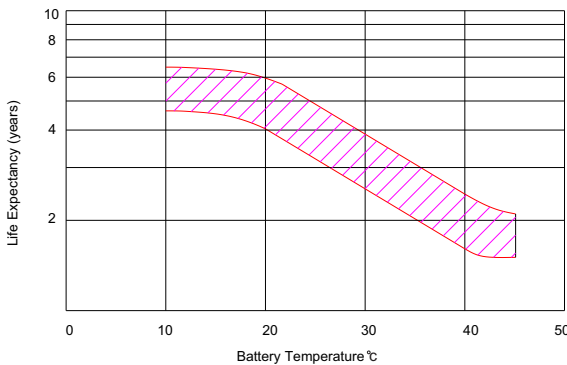
# D12120

12V12Ah

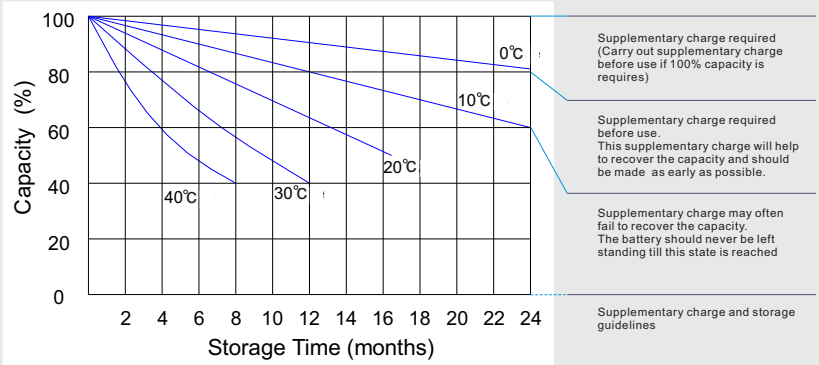


**Dynamics**

Effect of temperature on long term float life



Storage characteristic



## Constant Current Discharge Characteristics : A(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.6V	518.40	336.96	273.82	168.91	99.864	52.028	36.792	30.096	29.442	16.659	14.180	7.9265
10.0V	504.90	336.60	269.89	166.18	99.576	51.715	36.720	30.024	29.219	16.525	14.035	7.6356
10.2V	494.80	326.50	263.69	165.10	99.360	51.590	36.648	30.024	29.145	16.503	13.890	7.4902
10.5V	447.14	313.04	249.96	161.14	97.704	50.776	36.432	29.808	29.071	16.458	13.744	7.1993
10.8V	399.41	292.84	236.16	157.32	96.048	50.087	36.144	29.592	28.997	16.391	13.526	6.9811
11.1V	351.75	272.65	222.43	153.50	94.392	49.336	35.856	29.376	28.922	16.391	13.308	6.7630

## Constant Power Discharge Characteristics : W(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	518.40	336.96	273.82	168.91	99.864	52.028	36.792	30.096	29.442	16.659	14.180	7.9265
10.0V	504.90	336.60	269.89	166.18	99.576	51.715	36.720	30.024	29.219	16.525	14.035	7.6356
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All mentioned values are average values.

## Capacity Factors With Different Temperature

Battery Type		-20°C	-10°C	0°C	5°C	10°C	20°C	25°C	30°C	40°C	45°C
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%

Charge the batteries at least once every six months, if they are stored at 25°C.

## Discharge Current VS. Discharge Voltage

Charging Method:

Constant Voltage	-0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.3CA
Constant Current	-0.2Cx2h+0.1CAx12h
Fast	-0.2Cx2h+0.3CAx4.0h

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