



FT12-150 (12V150Ah)

POWERSEL
ENERGY SOLUTIONS

FT12-150 is a front terminal type battery specially designed for Telecom use with 10+ years design life. The adoption of centralized venting system makes sure the battery can be installed in any location, and guarantees high security and reliability.

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	150Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx.45.0Kg
Max. Discharge Current	1500 A (5 sec)
Internal Resistance	Approx. 4 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	13.6 to 13.8 VDC/unit Average at 25°C
Recommended Maximum Charging Current Limit	45 A
Equalization and Cycle Service	14.6 to 14.8 VDC/unit Average at 25°C
Self Discharge	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 F9
Container Material	A.B.S. (UL94-HB), Flammability resistance of UL94-V1 can be available upon request.



MH28539



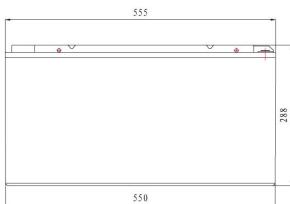
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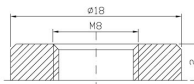
ISO9001:2000 Certificate

Dimensions

Unit: mm Dimension: 555(L)×110(W)×288(H)



Terminal F9



Constant Current Discharge Characteristics : A(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	382.1	297.0	231.5	156.8	92.63	56.64	39.15	32.40	26.52	18.63	15.75	8.332
10.0V	371.1	282.6	226.8	154.0	92.20	56.22	39.00	32.25	26.36	18.48	15.60	8.180
10.2V	360.1	272.6	223.2	151.2	91.34	55.79	38.70	32.10	26.21	18.33	15.45	8.029
10.5V	323.3	251.5	212.5	150.1	90.49	55.36	38.55	31.80	25.90	18.18	15.30	7.877
10.8V	291.8	229.4	195.9	147.5	88.35	54.37	37.50	31.05	25.43	17.88	15.15	7.726
11.1V	249.2	205.0	175.7	138.1	83.93	51.96	35.85	29.55	24.34	17.12	14.69	7.271

Constant Power Discharge Characteristics : W(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	4031	3163	2547	1775	1070	667.6	465.9	386.2	316.4	222.5	188.3	99.90
10.0V	3952	3066	2506	1753	1068	664.1	466.1	385.7	315.6	221.4	187.1	98.16
10.2V	3907	2985	2477	1741	1060	660.1	464.0	384.9	314.5	220.0	185.4	96.34
10.5V	3557	2779	2363	1729	1050	655.3	462.2	381.3	310.8	218.1	183.6	94.53
10.8V	3239	2562	2184	1701	1031	646.9	449.6	372.6	305.1	214.5	181.8	92.71
11.1V	2845	2316	1966	1602	987	622.9	430.2	354.6	292.0	205.4	176.3	87.26

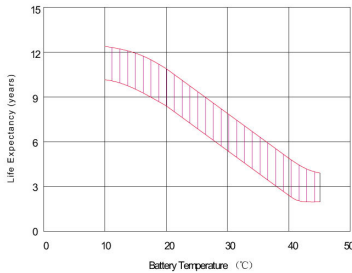
All mentioned values are average values.

FT12-150

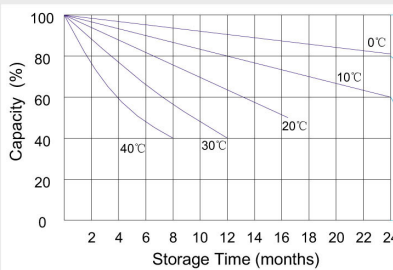
12V150Ah

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Effect of temperature on long term float life



Storage characteristic



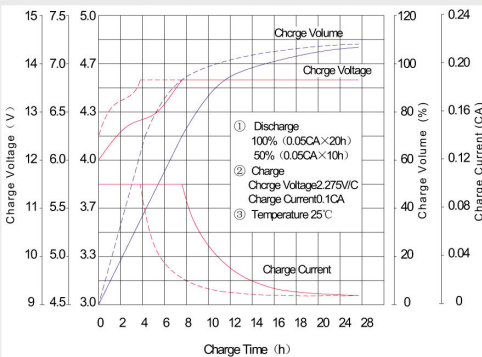
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

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

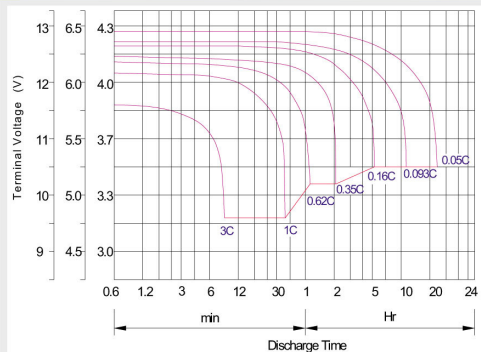
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached.

Supplementary charge and storage guidelines

Charge characteristic Curve for standby use



Discharge characteristic Curve



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%

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 six months, if they are stored at 25°C.

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

Maintenance & Cautions

Float Service:

※ Every month, recommend inspection every battery voltage.

※ Every three months, recommend equalization charge for one time.

Equalization charge method:

Discharge: 100% rate capacity discharge.

Charge: Max. current 0.3CA, constant voltage 2.4-2.45V/Cell charge 24h.

※ Effect of temperature on float charge voltage: -3mV/°C/Cell.

※ Length of service life will be directly affected by the number of discharge cycles, depth of discharge, ambient temperature and charging voltage.