



FT12-180 (12V180Ah)



FT12-180 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.

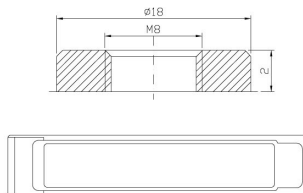
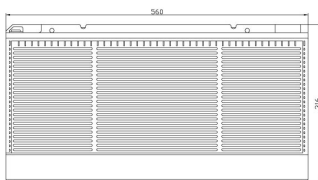
Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	180Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx.52.0Kg
Max. Discharge Current	1800 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	54 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.

Dimensions

Unit: mm Dimension: 560(L)×125(W)×316(H)

Terminal F9



MH28539



GHM20206-0910-E-16



ISO9001:2000 Certificate

Constant Current Discharge Characteristics : A(25°C)

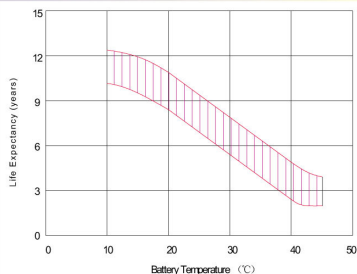
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	458.5	337.6	277.8	188.1	111.2	67.97	46.98	38.88	31.82	22.36	18.91	9.998
10.0V	445.3	321.2	272.1	184.9	110.6	67.46	46.80	38.70	31.64	22.18	18.72	9.816
10.2V	432.1	309.9	267.8	181.4	109.6	66.95	46.44	38.52	31.45	22.00	18.54	9.634
10.5V	388.0	286.0	255.0	180.1	108.6	66.44	46.26	38.16	31.08	21.81	18.36	9.453
10.8V	350.2	260.8	235.1	177.0	106.0	65.24	45.00	37.26	30.51	21.45	18.18	9.271
11.1V	299.0	233.0	210.8	165.7	100.7	62.35	43.02	35.46	29.20	20.54	17.63	8.726

Constant Power Discharge Characteristics : W(25°C)

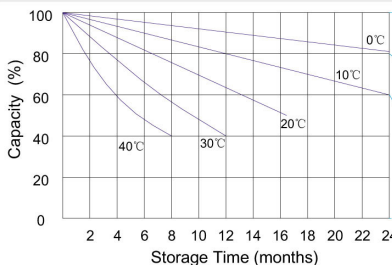
F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
9.60V	4838	3595	3056	2130	1284	801.1	559.1	463.4	379.7	267.0	225.9	119.9
10.0V	4742	3485	3007	2104	1281	796.9	559.3	462.9	378.7	265.7	224.5	117.8
10.2V	4688	3393	2973	2089	1271	792.1	556.8	461.9	377.4	263.9	222.5	115.6
10.5V	4268	3160	2836	2074	1260	786.3	554.7	457.5	372.9	261.8	220.3	113.4
10.8V	3887	2913	2621	2041	1237	776.3	539.6	447.1	366.2	257.4	218.1	111.3
11.1V	3414	2633	2359	1922	1184	747.5	516.2	425.5	350.4	246.5	211.6	104.7

All mentioned values are average values.

Effect of temperature on long term float life



Storage characteristic



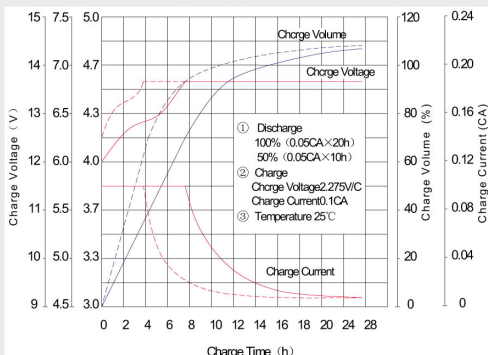
Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)

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

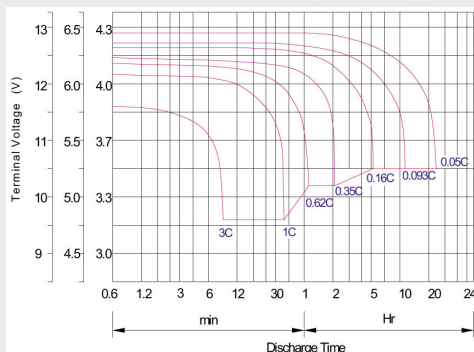
Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

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 0.3C
Constant Current	-0.2Cx2h+0.1Cx12h
Fast	-0.2Cx2h+0.3Cx4.0h

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.