

Model # MC2-1200 (2V/1200AH)



Product Description

MC(AGM Deep Cycle)series batteries provide superior high integrity and reliability. It is specially designed for frequent cyclic charge and discharge. By using strong grids, thick plate and special active material are designed for repeated deep-discharge applications. The MC series batteries offer 30% more cyclic life than the standby series. It is suitable for solar and wind renewable energy storage, mobility and medical equipment, telecom, broadband and cable TV,UPS systems etc.

Technical Specifications

Model #	MC2-1200
Cells Per Unit	1
Voltage per Unit	2
Capacity	1200Ah@C10hr-rate to 1.80V per cell @25 oC 848Ah@C20 692Ah@C5, 624@C3
Weight & dimensions(mm)	Approx. 68.0 Kg & 191(L)x210(W)x681(H)
Cycle Service	2.37 to 2.40 VDC/unit Average at 25 oC
Max. Discharge current	3200Amp (5Sec)
Internal resistance	Approx. 0.60 mΩ
Operating Temperature Range	Discharge: -40 C~60 C; Charge:- 0 C~50 C; Storage: -20 C~60 C
Normal Operating Temperature Range	25 C±5 C
Float charging Voltage	2.27 to 2.30 VDC/unit Average at 25 C
Recommended Maximum charging current	160Amp
Self-Discharge	Self-discharge ratio less than 2% per month at 25 oC. Please charge batteries before using.
Equalization and Cycle service	2.37 to 2.40VDC/unit Average at 25 C
Terminal	Thread insert & Bolt (F10-M8)
Design life	20 years
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.

Applicable Standards

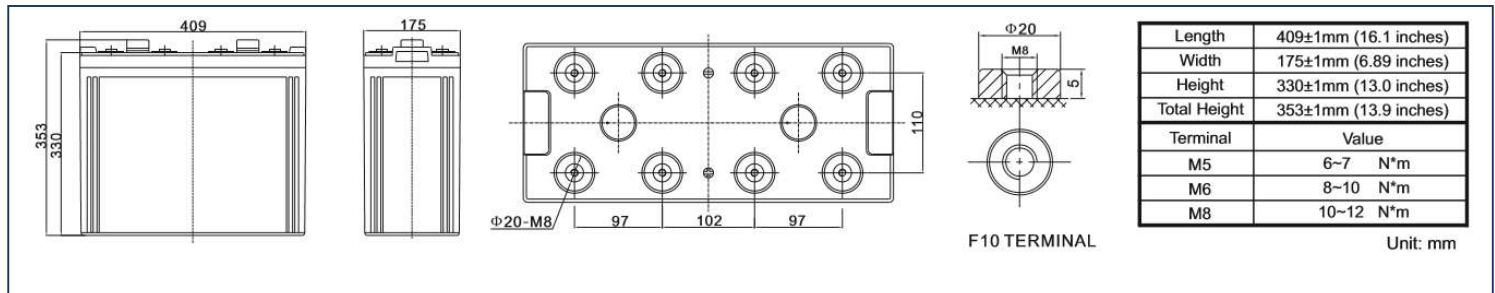
- ISO9001 & ISO14001
- Compliance to RoHs
- JIS, DIN, IEC & BS6290-4
- UL (MH25860)
- CE

Applications

- Fire & security systems
- Uninterruptible power supplies
- Marine equipment
- Communication equipment
- Heavy industrial applications
- Solar powered systems
- Telecommunication systems

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Dimensional details



Constant Current Discharge Characteristics : A(25 oC)

F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.9	393.6	312.0	220.0	166.8	136.8	118.2	106.4	83.0	71.2	37.4
1.87	440.0	344.0	236.0	176.9	144.4	124.4	112.8	86.9	74.4	39.1
1.83	504.0	384.0	256.0	188.6	152.0	129.7	116.8	90.8	77.6	40.8
1.8	560.0	416.0	265.6	194.0	155.0	132.8	120.0	93.1	80.0	42.0
1.75	624.0	445.6	277.6	201.8	157.6	136.0	122.4	94.7	81.6	42.8
1.7	688.0	460.0	285.6	205.6	160.4	137.6	124.0	95.4	82.4	43.3
1.65	709.6	488.8	295.2	211.2	162.6	139.2	125.6	96.2	83.2	43.7
1.6	740.0	505.6	306.4	220.0	167.2	141.6	127.2	97.0	84.0	44.1

Constant Power Discharge Characteristics : W(25 oC)

F.V/ Time	30min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.9	753.2	598.8	425.2	323.2	267.7	232.8	210.4	166.1	145.1	76.2
1.87	828.8	650.4	451.2	338.5	282.2	244.0	222.4	173.0	151.3	79.4
1.83	928.8	709.2	480.0	356.2	295.9	253.6	229.6	179.2	156.8	82.3
1.8	1014.8	756.4	496.0	364.2	301.5	259.2	235.2	183.1	160.6	84.3
1.75	1100.8	790.4	512.0	375.5	305.5	265.6	239.2	185.5	163.0	85.6
1.7	1180.4	798.4	525.2	381.9	310.4	268.0	241.6	187.0	164.5	86.4
1.65	1200.4	833.6	539.6	390.0	314.4	270.4	244.0	188.6	165.3	86.8
1.6	1214.8	859.6	552.4	402.8	322.4	272.8	245.6	189.4	166.1	87.2

Capacity Factors With Different Temperature

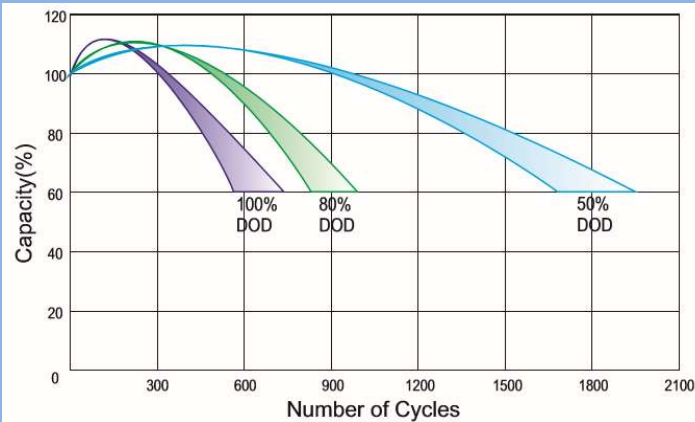
Temperature	-30°C	-20°C	-10°C	0°C	10°C	20°C	25°C	30°C	40°C	50°C
Capacity	60%	75%	83%	89%	92%	99%	100%	103%	105%	109%

Long time discharge capacity for solar/wind application

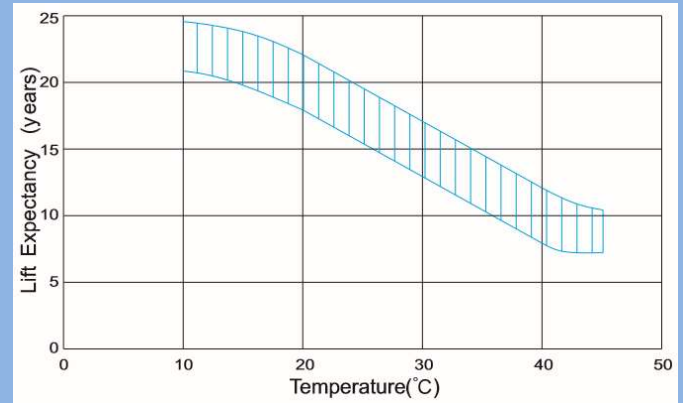
Capacity	C24 (Ah)	C48 (Ah)	C72 (Ah)	C100 (Ah)	C120 (Ah)	C240 (Ah)
Model	F.V=1.85VPC					
OPzV-800	890	1000	1006	1020	1037	1055

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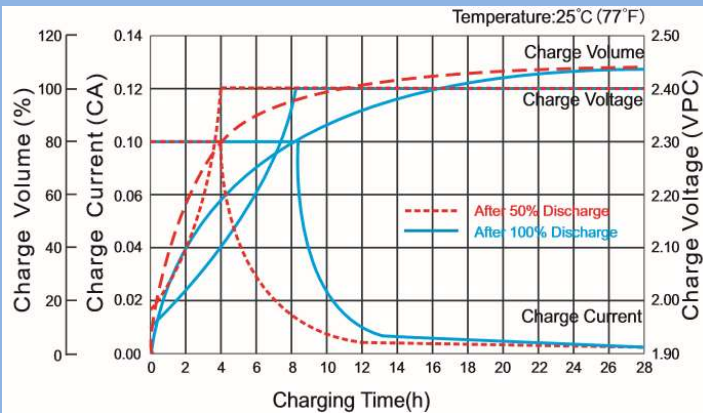
Life Characteristic of Cyclic use:



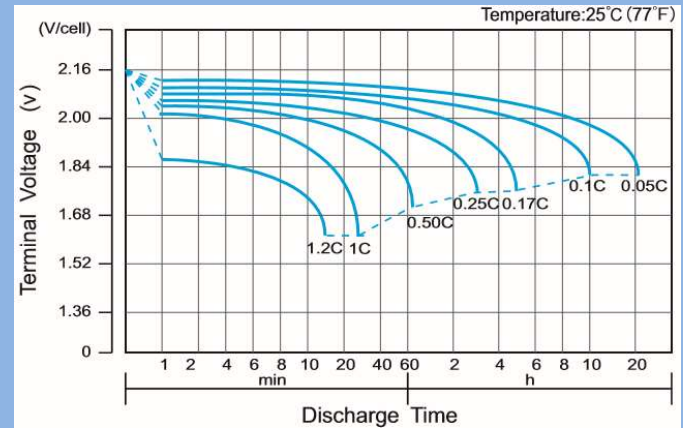
Life Expectations:



Charge Characteristic curve for cyclic use



Discharge Characteristics curve



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 deg C.

Charging Method

Constant Voltage	-0.2Cx2h+14.4-14.7Vx24h,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