

Lead-Carbon Battery

MDC200-12

Applications

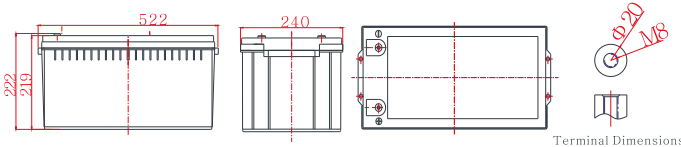
- › Solar / wind energy and other new energy storage
- › Hybrid vehicles, electric bicycles and other new energy vehicles
- › Other backup or cycle purposes

General Features

- › Lead-carbon composite negative plate, both capacitance and battery characteristics
- › Long cycle life, excellent deep cycle discharge ability
- › Excellent charge acceptance ability
- › Optimized capability of instant high-current discharging
- › Strong high and low temperature performance
- › Precision sealing technology



Dimension: 522(L)×240(W)×219(H)×222(TH) Unit: mm



Specification

Nominal Voltage	12V
Nominal Capacity	200Ah
Design life	15 years
Terminal	M8
Approx. Weight	Approx 61.7kg (136.0lbs)
Container Material	ABS
Rated Capacity	210Ah ▶ 20Hour Rate (10.5A to 10.8V)
	200Ah ▶ 10Hour Rate (20.0A to 10.8V)
	163Ah ▶ 3Hour Rate (54.2A to 10.8V)
Internal resistance	Full charged at 25°C: 2.9 mΩ
Max. Discharge Current	2400A(5S)
Operating Temperature	Discharge: -40 ~60°C(-40~ 140°F)
	Charge: -20 ~50°C(-4~ 122°F)
	Storage: -20 ~50°C(-4~ 122°F)
Charge current:	Max.60.0A ; Recom.20.0~40.0A
Charge Method (25 °C)	Float Charge: 13.5-13.8V, recom. 13.5V(-18mV/ °C)
	Equalize charge: 13.8-14.1V, recom. 14.1V(-24mV/ °C)
	Cycle charge: 14.4-15.0V, recom. 14.4V(-30mV/ °C)
Self discharge	3% of capacity declined per month at 25°C

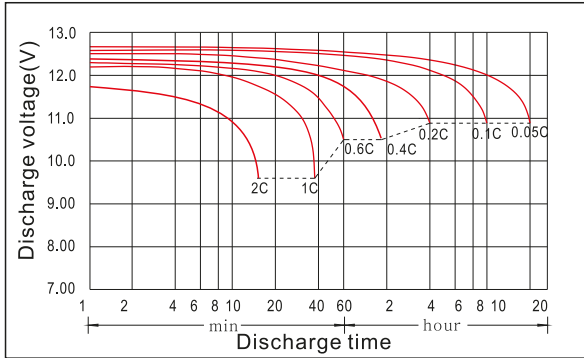
Constant Current Discharge Characteristics Unit: A (25°C, 77°F)

FV/Time	5min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	719	386	235	136	78.0	56.6	38.0	24.9	21.0	11.0
1.65V	697	374	231	135	77.6	56.0	37.6	24.7	20.8	11.0
1.70V	669	366	227	134	77.0	55.2	37.2	24.5	20.6	10.9
1.75V	615	354	225	132	75.8	54.6	36.8	24.3	20.4	10.9
1.80V	552	330	215	129	74.4	54.2	35.8	24.1	20.0	10.8
1.85V	492	295	196	119	70.7	51.1	34.0	23.2	19.6	10.6

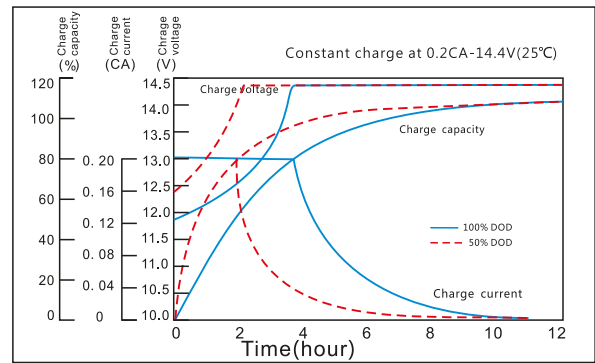
Constant Power Discharge Characteristics Unit: W/cell (25°C, 77°F)

FV/Time	5min	15min	30min	1h	2h	3h	5h	8h	10h	20h
1.60V	1205	680	425	257	147	108	72.1	48.5	40.4	21.8
1.65V	1159	668	421	255	147	106	71.7	48.1	40.0	21.7
1.70V	1153	660	421	253	146	106	71.1	47.9	39.6	21.6
1.75V	1075	656	419	251	146	105	70.7	47.5	39.2	21.5
1.80V	988	621	409	249	145	105	69.9	47.1	38.8	21.4
1.85V	882	555	375	231	139	99.6	66.7	45.5	38.2	21.2

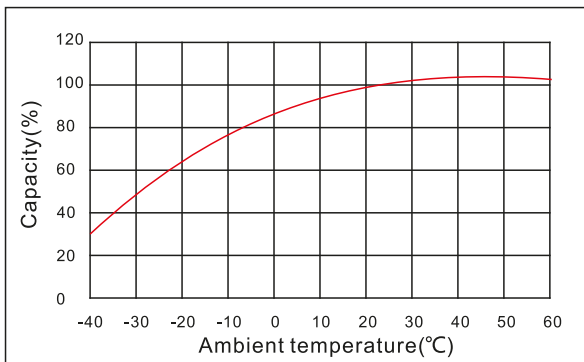
Discharge characteristic



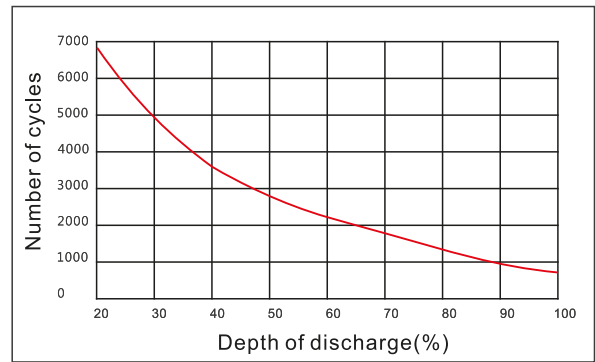
Charging characteristic



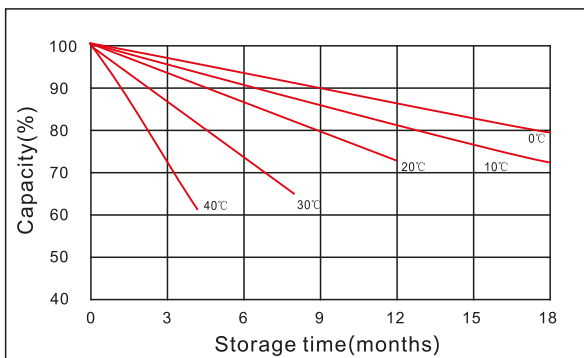
The effect of temperature on capacity



The effect of discharge depth on cycle life



Curves of self-discharge



Curves of open circuit voltage vs. capacity

