

DC12-100C(12V100Ah)



Feature

DC-C series lead-carbon batteries use functional activated carbon and graphene as carbon materials, which are added to the negative plate of the battery to make lead carbon batteries have the advantages of both lead-acid batteries and super capacitors. It not only improves the ability of rapid charge and discharge, but also greatly prolongs the battery life. It is specially designed for daily heavy cyclic discharge use with feature low boost charge voltage, Especially suitable for the application of PSOC.

Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	100Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 29.0Kg (Tolerance ±3%)
Internal Resistance	Approx. 7.5 mΩ
Terminal	F12(M8)/F5(M8)
Max. Discharge Current	1000A (5 sec)
Design Life	15 years
Max. Charging Current	30.0 A
Cycle Use Voltage	14.2 V~14.4 V @ 25°C Temperature Compensation: -4mV/°C/Cell
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
Self Discharge	The batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charged batteries before using.
Container Material	A.B.S. White/Black. UL94-HB/UL94-V0.



Application

- ◆ Home energy storage system
- ◆ Smart power grid and micro-grid system
- ◆ Distributed energy storage system
- ◆ Solar and wind energy storage system
- ◆ Solar power generation grid or off-grid energy storage system
- ◆ Generation and battery hybrid energy storage system
- ◆



ISO 9001



ISO 14001



OHSAS 18001



Constant Current Discharge Characteristics :A(25°C)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	163.7	132.8	87.1	54.3	33.2	24.9	19.8	16.7	11.3	9.28	5.20
1.65V	154.7	126.9	83.6	52.4	32.1	24.1	19.3	16.2	11.1	9.17	5.12
1.70V	142.4	118.9	79.9	50.7	31.1	23.5	18.8	15.8	11.0	9.03	5.06
1.75V	130.4	110.6	76.4	48.9	30.0	22.8	18.3	15.4	10.8	8.91	5.00
1.80V	118.0	102.2	73.0	47.0	28.9	22.0	17.8	15.0	10.6	8.80	4.95
1.85V	96.4	84.8	62.9	42.2	26.5	20.4	16.5	14.0	10.0	8.28	4.70

Constant Power Discharge Characteristics : WPC(25°C)

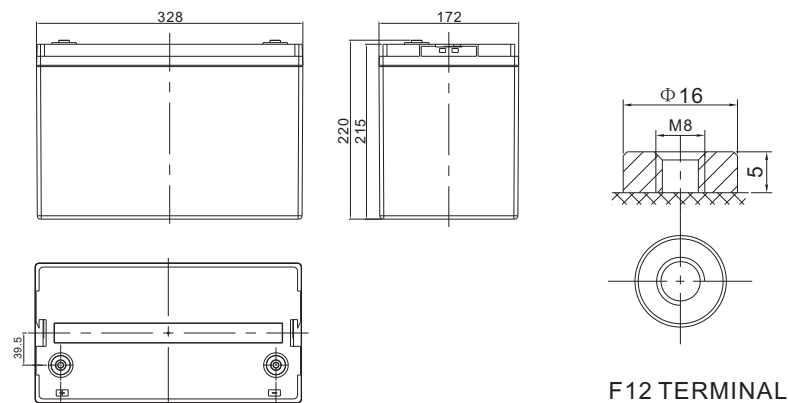
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	278.3	232.1	158.2	102.0	62.9	47.5	38.1	32.1	22.0	18.2	10.2
1.65V	264.8	223.1	153.2	99.3	61.2	46.3	37.2	31.4	21.7	18.0	10.1
1.70V	251.3	214.1	148.2	96.5	59.5	45.2	36.3	30.7	21.5	17.8	10.0
1.75V	234.2	202.1	143.1	93.5	57.7	44.0	35.5	30.0	21.2	17.6	9.88
1.80V	215.7	189.3	138.2	90.5	55.9	42.8	34.6	29.3	20.9	17.4	9.79
1.85V	179.4	159.3	120.2	81.6	51.5	39.8	32.3	27.4	19.7	16.4	9.31

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values. The battery must be fully charged before the capacity test. The C₂₀ should reach 95% after the first cycle and 100% after the third cycle.

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Dimensions



Unit: mm

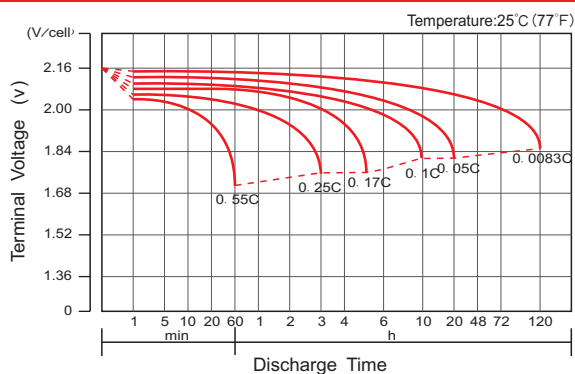
Length	328±2mm (12.9 inches)
Width	172±2mm (6.77 inches)
Height	215±2mm (8.46 inches)
Total Height	220±2mm (8.66 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Reference Capacity

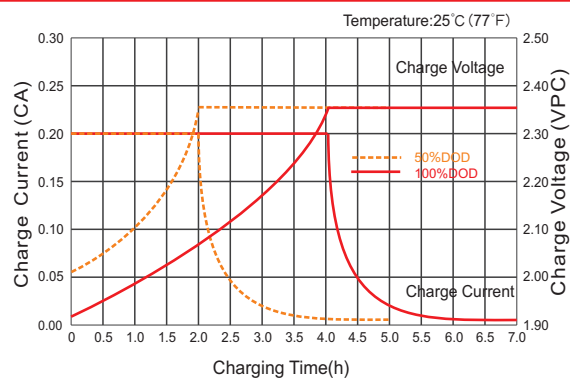
Hour Rate	C20 (Ah)	C72 (Ah)	C100 (Ah)	C120 (Ah)
F.V (V/Cell)	1.75	1.85	1.85	1.85
Capacity (Ah)	100.0	103.6	106.2	107.8

Characteristic Curve

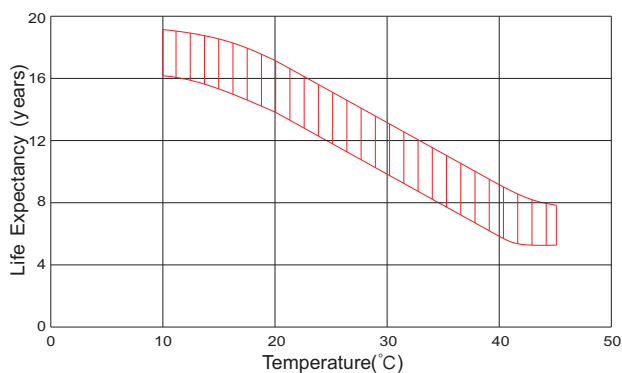
Discharge Characteristics Curve



Charge Characteristic Curve for Cycle Use(IU)



Effect of Temperature on Long Term Life



Cycle Life in Relation to Depth of Discharge

