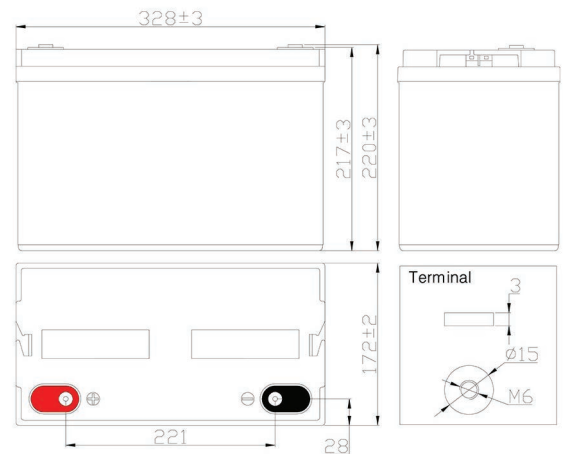


# DC12100

## 12V100Ah Sealed Lead Acid Battery

### Features

<b>Nominal Voltage (V)</b>	12V (6 cells in series)	
<b>Rated Capacity</b>	100.0Ah	(C <sub>10</sub> , 180V/cell)
<b>Dimensions (mm)</b>	Length	328 ± 3mm
	Width	172 ± 2mm
	Height	217 ± 3mm
	Total Height	220 ± 3mm
<b>Nominal Capacity @ 25°C (Ah)</b>	20 Hour rate (5.450A to 10.8 volts)	109.0Ah
	10 Hour rate (10.20A to 10.8 volts)	102.0Ah
	5 Hour rate (17.50A to 10.8 volts)	87.5Ah
	1 Hour rate (63.30A to 10.5Volts)	63.3Ah
<b>Approx. Weight</b>	30kg	
<b>Terminal</b>	T12	
<b>Max. Discharge Current</b>	800A @ 25°C (5s)	
<b>Internal Resistance</b>	5mΩ @25°C (Full Charged Battery)	
<b>DOD 80%</b>	≥450 Cycles @ 25°C	
<b>Ambient Temperature</b>	Charge: -15°C ~ 50°C Discharge: -20°C ~ 60°C Storage: -20°C ~ 50°C	
<b>Container Material</b>	ABS, UL94-HB, UL94-V0, Optional	
<b>Self Discharge</b>	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.	



### Certification



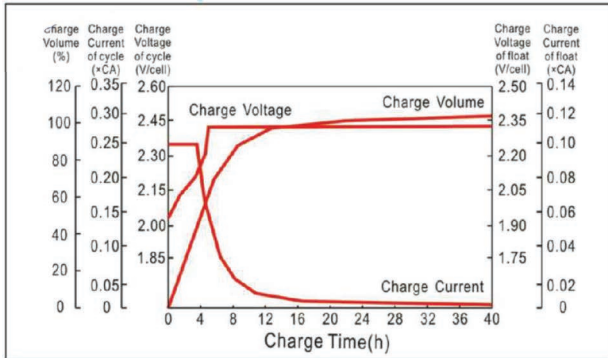
#### Constant Current Discharge Characteristics (A), (25°C)

F.V/TIME	5min	10min	15min	30min	60min	2H	3H	5H	8H	10H	20H
1.60V/cell	340.0	226.5	181.4	112.5	65.0	38.85	27.60	18.48	12.42	10.60	5.800
1.70V/cell	305.0	208.5	172.5	109.5	64.1	38.85	27.10	18.04	12.22	10.45	5.650
1.75V/cell	275.0	192.5	164.5	106.5	63.3	37.85	26.80	17.77	12.10	10.35	5.550
1.80V/cell	245.0	175.5	154.4	102.4	62.0	37.33	26.50	17.50	11.92	10.20	5.450

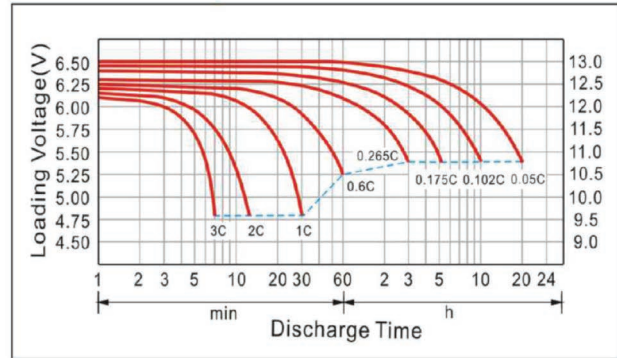
#### Constant Wattage Discharge Characteristics (Watt), (25°C)

F.V/TIME	5min	10min	15min	30min	60min	2H	3H	5H	8H	10H	20H
1.60V/cell	586.5	403.9	329.5	210.0	124.6	75.76	54.74	36.74	24.72	21.11	11.59
1.70V/cell	538.8	378.8	317.7	206.2	123.4	75.10	53.88	35.96	24.38	20.87	11.30
1.75V/cell	492.7	354.5	305.7	202.4	122.4	74.44	53.42	35.51	24.20	20.70	11.10
1.80V/cell	445.1	327.6	389.7	196.3	120.4	74.04	52.96	35.00	23.84	20.40	10.90

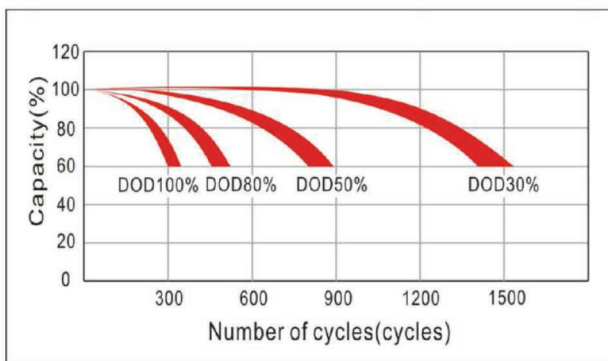
### Charge Characteristics Curve



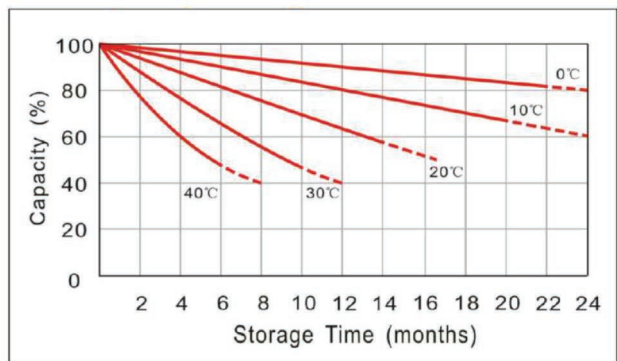
### Discharge Characteristics Curve



### Cycle service life in relation to depth of discharge



### Capacity Storage Characteristics



#### 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	50°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%

**Maintenance & Cautions**

#### Charging Procedure

Application	Charging method	Charge voltage at 25°C	Temperature compensation coefficient of charging voltage	Max. charging current	Temperature
For stanby power source	Constant voltage charging (with current restriction)	2.25~2.30 V/cell	-3mV/°C/cell	0.2CA	-15~50°C
For cycle service		2.40~2.45 V/cell	-4mV/°C/cell	0.3CA	

#### Float service

Every month, recommend inspection every battery voltage.

Every three months, recommend equalization charge for one tiem. Equalization charge method: Step 1: Discharge: 100% rate capacity discharge. Step 2: Charge: Max. current 0.3CA, constant voltage 2.40~2.45V/cell charge 24h.

#### Cycle service

Avoid battery over discharge, especially battery series connection use.

Charged with recommended voltage, ensure battery can be full recharged.

Ingerneral, recharge capacity should be 1.1~1.15 times discharge capacity.

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

**Charge the batteries at least once every six months, if they are stored at 25°C. Charging Method:**

Constant Voltage: -0.2C x 2h+2.4~2.45V/cell x 24h, Max. current 0.25CA

Constant Voltage: -0.2C x 2h+0.1C x 12h

Fast: -0.2C x 2h+0.3C x 4h

#### Terminal of torque:

Bolt	M5	M6	M8
Termnial	T3, T10	T4, T7, T11, T12, T13	T5, T6, T8, T9, T14
Torque	6~7N.m	8~10N.m	10~12N.m