



## CD SERIES

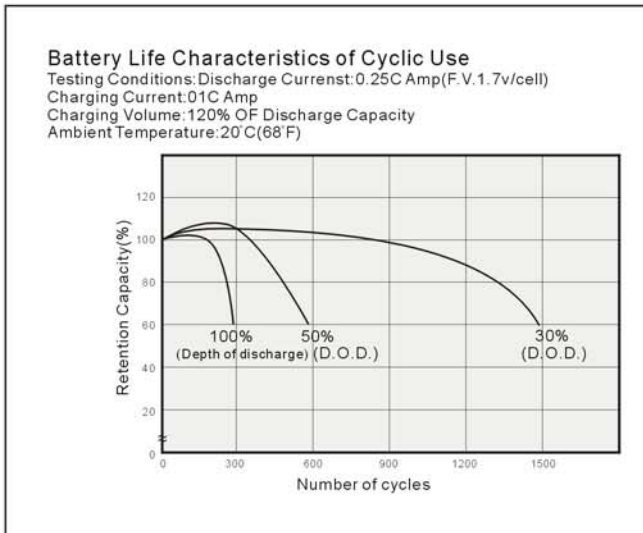
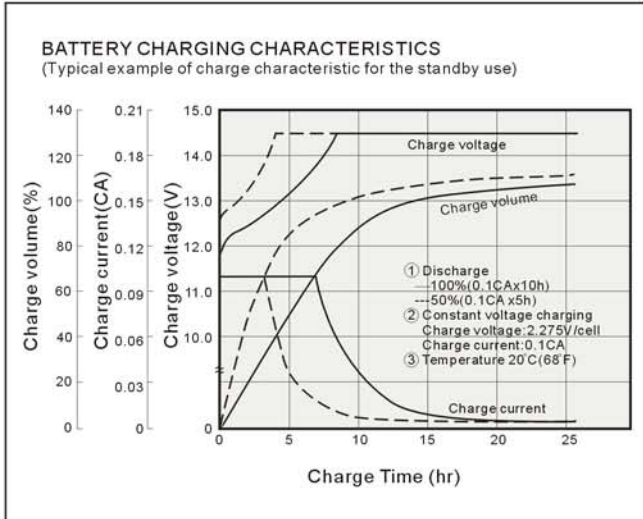
CCB 12CD-110 (12V110AH)

### FEATURES

- \*Maintenance Free
- \*Leak Proof/ Spill Proof
- \*Gas Recombination
- \*Absorbed Electrolyte
- \*Float/ Cycle Use
- \*Low Self Discharge Rate
- \*Safety Valve
- \*Lead Calcium Alloy
- \*Useable In Any Position
- \*Rugged Design
- \*Available Flame Retardant Material(Optional)

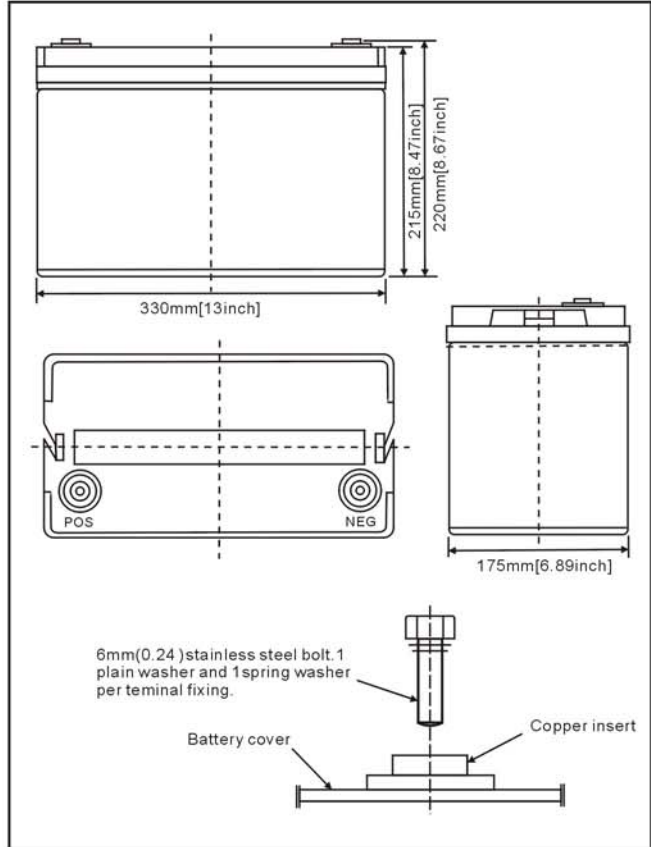
Nominal Voltage		
Rated Capacity (20 Hour Rate)		
Dimensions	Length	330mm(13.0inches)
	Width	175mm(6.89inches)
	Height	215mm(8.47inches)
	Total Height	220mm(8.67inches)
	Weight	29kg(63.80lbs)

VRLA 12V100Ah - Specifications				
Nominal Voltage	Rated Capacity @20hr rate	Maximum Charge Rate	Maximum Discharge- Amps 5sec.	Internal Resistance
12V	100Ah	50Amps	1000Amps	4Mili Ohms
Capacity @ 77 F(25 C)	113.40Ah @ 20 hour rate (5.67A) to 1.75 volts per cell			
	106.20Ah @ 10 hour rate (10.62A) to 1.75 volts per cell			
	92.00Ah @ 5 hour rate (18.4A) to 1.75 volts per cell			
	84.90Ah @ 3 hour rate (28.3A) to 1.75 volts per cell			
	65.70Ah @ 1 hour rate (65.7A) to 1.75 volts per cell			
Operating Temperature Range	Discharge	-4 F (-20°C) to + 140 F (60°C)		
	Charge	14 F (-10°C) to + 122 F (50°C).(with temperature compensation)		
Recomanded Operating Temperature Range	+68 F (20°C)to + 77 F (25°C)			
Self Discharge @ 77 F (25 C)	Capacity after 3 month storage		90%	
	Capacity after 6 month storage		80%	
	Capacity after 12 month storage		60%	
	CCB Battery may be stored for up to 12 months at 77 F(25°C) and then a freshing charge is required.For higher temperatures the time interval will be shorter.			
Capacity affected by Temperature (20 hour rate)	104 F (40°C)		102%	
	77 F (25°C)		100%	
	32 F (0°C)		85%	
	5 F (-15°C)		65%	
Charge Method (Constant Voltage)	Cycle use (Repeating use)	Initial current	40 A or smaller	
		Control voltage	14.5V to 14.9V (per 12V cell 25°C)	
	Float use	Initial current	15A or smaller	
		Control voltage	13.6V to 13.8V(per 12V cell25°C)	



**Charging Procedure**

Application	Charging method	Charging Voltage at 20°C (V/cell)	Temperature compensation coefficient of charging voltage (mV/Ccell)	Max. charging current (CA)	Charging time 0.1CA, 20°C (h)		Temp (°C)
					100% discharge	50% discharge	
For standby power Source	Constant voltage & Constant current charging	2.25~2.30	-3	0.3	24	20	0~40 (32~104°F)
For cycle service	(with current restriction)	2.40~2.0	-4	0.3	16	10	



**Constant power discharge characteristics at 25°C/77°F**

Final Voltage	Discharge time						
	5Min	10Min	15Min	30Min	1Hr	3Hr	5Hr
9.60V	3918	2703	2088	1316	794	333	217
10.20V	3602	2599	1993	1457	746	327	213
10.80V	3240	2674	1772	1039	730	318	208

**Constant power discharge characteristics at 25°C/77°F**

End VPC	Discharge time						
	1Hr	2Hr	3Hr	5Hr	8Hr	10Hr	20Hr
1.85V	60.3	36.7	26.2	16.8	11.3	9.46	5.36
1.80V	63.4	38.5	27.7	18.1	12.0	10.13	5.55
1.75V	65.7	39.6	28.3	18.4	12.6	10.62	5.67

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