



# EV12-110(12V110Ah)



## Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	110Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 32.0 Kg (Tolerance ±2%)
Internal Resistance	Approx. 5.0 mΩ
Terminal	F12(M8)/F5(M8)
Max. Discharge Current	1100A (5 sec)
Cold Cranking Ampere(CCA)	700A
Maximum Charging Current	33.0 A
Reference Capacity	C3 84.9AH
	C5 93.5AH
	C10 110.0AH
	C20 117.8AH
Float Charging Voltage	13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.6 V~14.8 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	RITAR Valve Regulated Lead Acid (VRLA) 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. UL94-HB, UL94-V0 Optional.



EV (Electric Vehicle) series is specially designed for frequent discharge deep cycle application. By using the specially designed active material, strong grids and thick plate construction, the EV series battery offers reliable performance in high load situations and could provide competitive cycle performance. Suitable for Electric Vehicle and Golf cart; Industrial equipment, Floor Machines, Forklifts, Aerial lifts, and Robotics; Marine, RV, and no-idle solutions; Mobility and Medical Equipment; and most outdoor application.



## Dimensions

Length	328±1mm (12.9 inches)
Width	172±1mm (6.77 inches)
Height	215±1mm (8.46 inches)
Total Height	220±1mm (8.66 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

Unit: mm

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

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	215.6	123.9	71.6	42.4	30.2	23.6	19.7	13.9	11.8	6.12
1.65V	209.1	121.3	70.3	41.6	29.8	23.3	19.5	13.8	11.7	6.07
1.70V	200.7	117.9	68.5	40.7	29.2	22.9	19.2	13.6	11.5	5.99
1.75V	189.3	113.2	66.0	39.4	28.3	22.3	18.7	13.3	11.3	5.89
1.80V	174.0	106.8	62.7	37.6	27.1	21.5	18.1	12.9	11.0	5.75
1.85V	152.8	97.7	57.9	35.0	25.5	20.3	17.2	12.3	10.6	5.53

### Constant Power Discharge Characteristics : WPC(25°C)

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	377	225	134	80.3	57.7	45.4	38.0	27.2	23.2	12.1
1.65V	373	224	133	79.5	57.2	45.0	37.8	27.0	23.0	12.0
1.70V	361	219	130	77.9	56.2	44.3	37.2	26.6	22.7	11.8
1.75V	346	212	126	75.8	54.8	43.3	36.4	26.1	22.3	11.6
1.80V	322	202	120	72.7	52.7	41.8	35.4	25.4	21.7	11.4
1.85V	287	187	112	68.0	49.7	39.6	33.7	24.3	20.9	11.0

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.



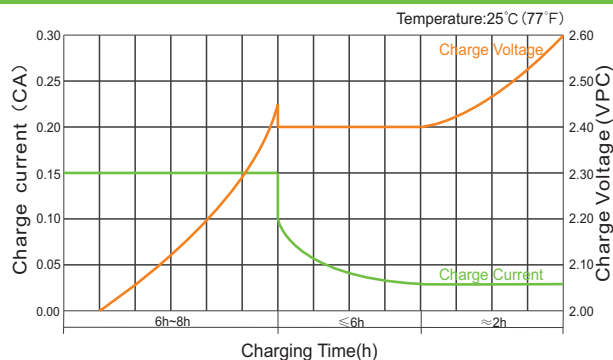
# EV12-110(12V110Ah)



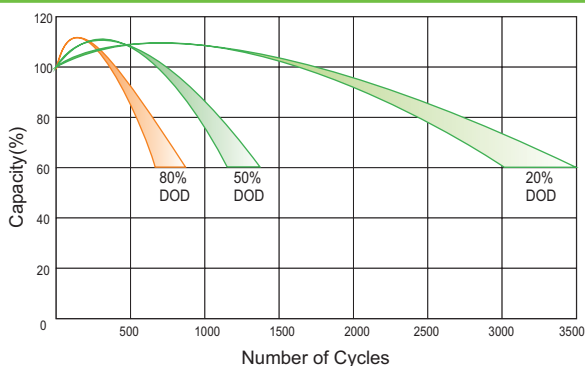
## Charge Characteristic Curve for Cycle Use(IUUU)



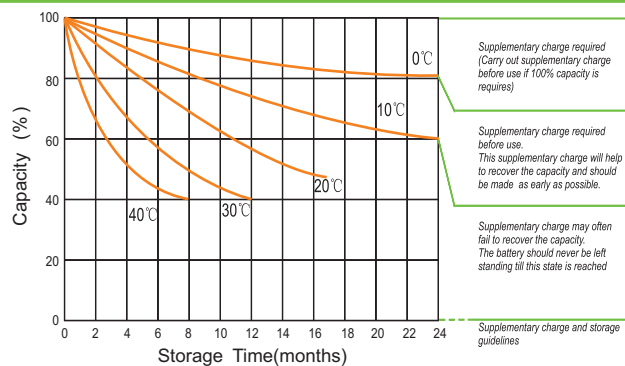
## Charge Characteristic Curve For Cycle Use(III)



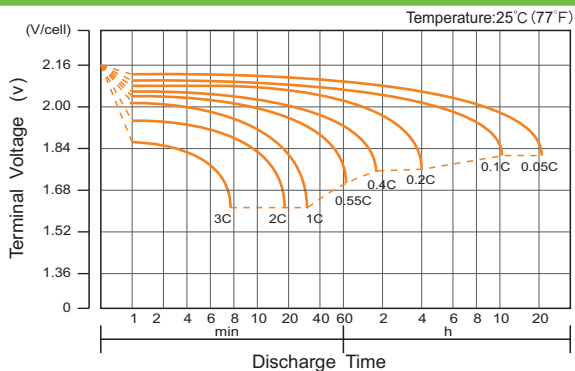
## Cycle Life in Relation to Depth of Discharge



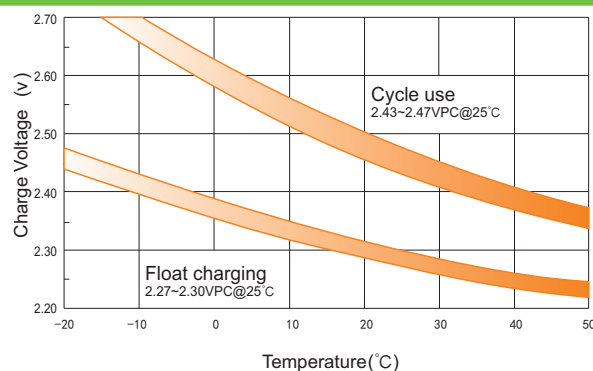
## Storage Characteristics



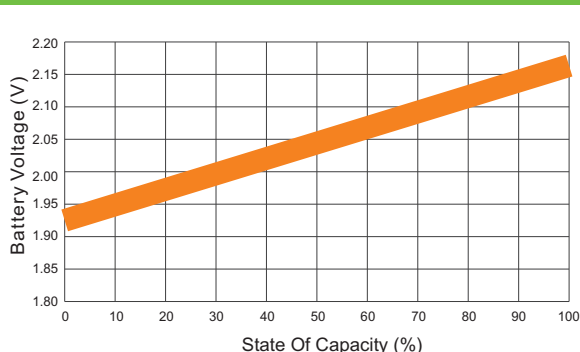
## Discharge Characteristics Curve



## Relationship Between Charging Voltage and Temperature



## Relationship of OCV And State of Charge(20°C)



## Temperature Effects on Capacity

