



# EV12-100S(12V100Ah)



## Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	100Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 31.0 Kg (Tolerance ±2%)
Internal Resistance	Approx. 4.8 mΩ
Terminal	F12(M8)/F15(M6)
Max. Discharge Current	1000A (5 sec)
Cold Cranking Ampere(CCA)	620A
Maximum Charging Current	30.0 A
Reference Capacity	C3 78.3AH
	C5 88.0AH
	C10 95.0AH
	C20 100.0AH
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.



ISO 9001



ISO 14001



OHSAS 18001



MH 28539



G4M20206-0910-E-16

## Dimensions

Length	306.5±2mm (12.1 inches)
Width	168.5±2mm (6.63 inches)
Height	210±2mm (8.27 inches)
Total Height	215±2mm (8.46 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	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	106.0	61.2	36.6	27.8	21.9	18.5	12.3	10.2	5.20
1.65V	103.7	60.1	36.0	27.4	21.6	18.3	12.2	10.1	5.15
1.70V	100.8	58.5	35.1	26.9	21.2	18.0	12.0	10.0	5.09
1.75V	96.8	56.4	34.0	26.1	20.7	17.6	11.7	9.77	5.00
1.80V	91.3	53.6	32.5	25.0	19.9	17.0	11.4	9.50	4.88
1.85V	83.5	49.5	30.2	23.5	18.8	16.1	10.8	9.12	4.70

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

F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	192	114	69.4	53.2	42.1	35.7	24.0	20.0	10.2
1.65V	191	114	68.7	52.7	41.7	35.5	23.8	19.9	10.2
1.70V	187	111	67.3	51.7	41.0	35.0	23.5	19.6	10.0
1.75V	181	108	65.4	50.5	40.1	34.3	23.0	19.3	9.9
1.80V	173	103	62.7	48.6	38.8	33.2	22.4	18.8	9.7
1.85V	160	95	58.7	45.8	36.7	31.7	21.4	18.0	9.3

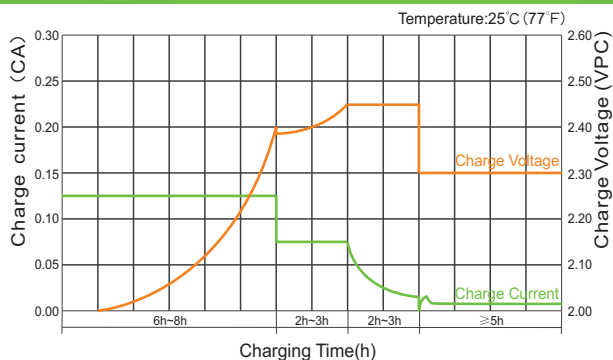
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.



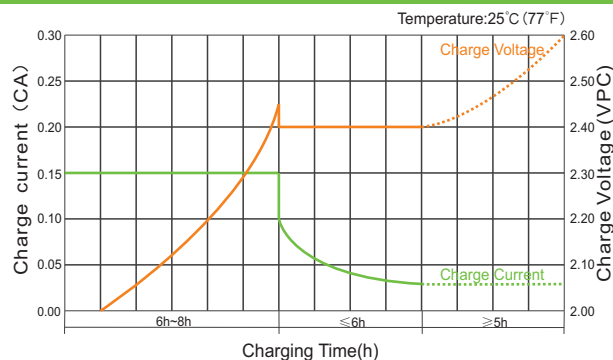
# EV12-100S (12V100Ah)



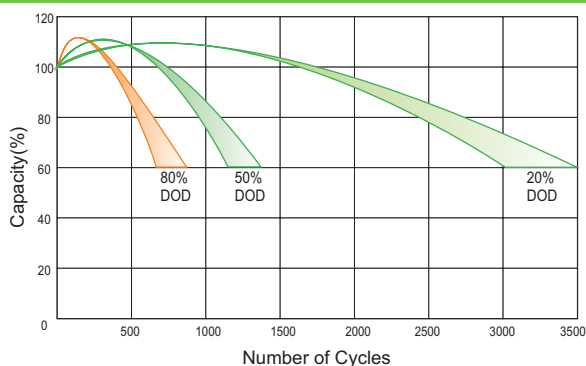
## Charge Characteristic Curve for Cycle Use (IIUU)



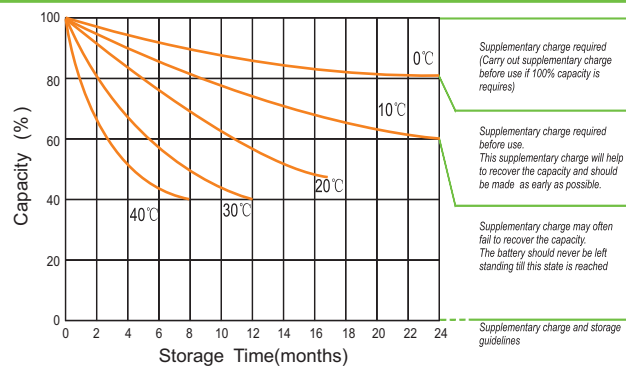
## Charge Characteristic Curve For Cycle Use (IUI)



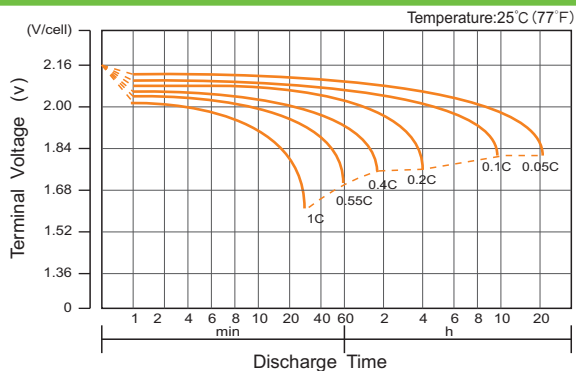
## Cycle Life in Relation to Depth of Discharge



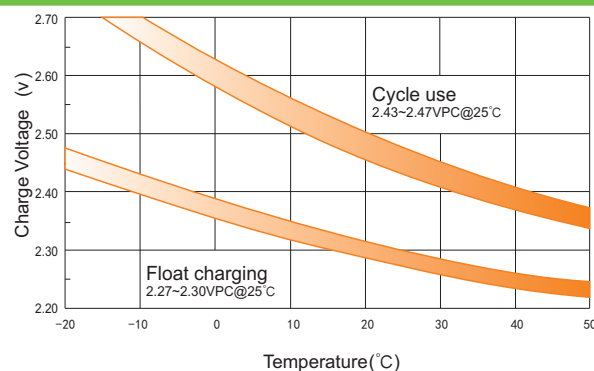
## Storage Characteristics



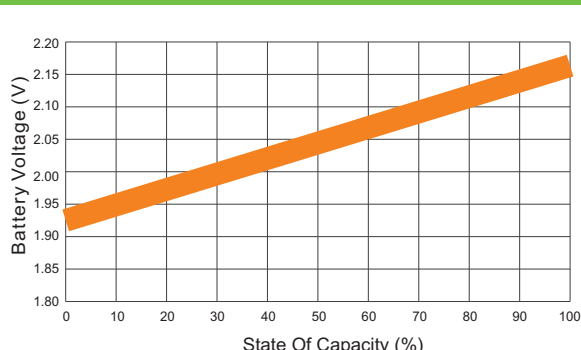
## Discharge Characteristics Curve



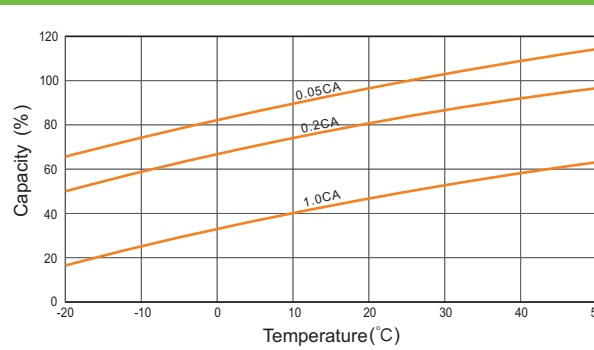
## Relationship Between Charging Voltage and Temperature



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



## Temperature Effects on Capacity



(Note) All above information shall be changed without prior notice, Ritar reserves the right to explain and update the latest information.

For Battery Sales + EPA Battery Recycling and AC / DC Power Services, please contact:  
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