



EV12-120(12V120Ah)



Specification

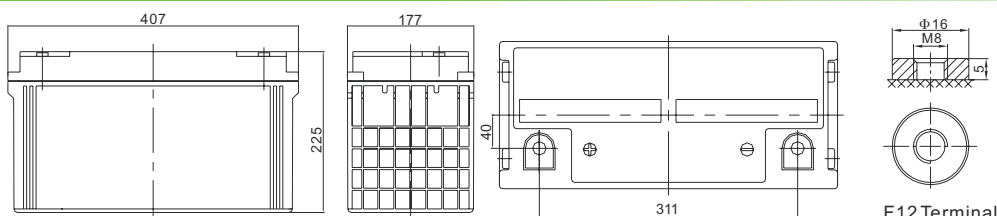
Cells Per Unit	6
Voltage Per Unit	12
Capacity	120Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 36.5 Kg (Tolerance ±3.0%)
Internal Resistance	Approx. 4.5 mΩ
Terminal	F5(M8)/F12(M8)
Max. Discharge Current	1200A (5 sec)
Cold Cranking Ampere(CCA)	710A
Maxi. Charging Current	36.0A
Reference Capacity	C3 93.0AH
	C5 105.0AH
	C10 120.0AH
	C20 127.2AH
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. It is suitable for Electric Vehicle and Golf cart, Floor Machines, Forklifts, Aerial lifts, Robotics, Marine, RV, Mobility and Medical Equipment, and most outdoor application.



Dimensions



Length	407±2mm (16.0 inches)	
Width	177±2mm (6.97 inches)	
Height	225±2mm (8.86 inches)	
Total Height	225±2mm (8.86 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	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	289.4	225.3	134.0	74.1	43.7	33.9	26.6	22.7	15.2	12.7	6.62
1.65V	273.4	215.4	128.7	71.5	42.3	32.8	25.9	22.1	15.1	12.5	6.52
1.70V	251.7	201.7	123.0	69.2	40.9	31.9	25.2	21.5	14.8	12.3	6.44
1.75V	230.4	187.7	117.6	66.7	39.5	31.0	24.6	21.0	14.6	12.2	6.36
1.80V	208.6	173.3	112.4	64.1	38.1	30.0	23.9	20.4	14.4	12.0	6.30
1.85V	170.5	143.8	96.8	57.5	34.9	27.8	22.2	19.0	13.5	11.3	5.98

Constant Power Discharge Characteristics : WPC(25°C)

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	491.9	393.8	243.5	139.2	82.9	64.7	51.1	43.7	29.7	24.9	13.0
1.65V	473.8	382.1	236.2	135.2	80.6	63.0	49.9	42.7	29.5	24.6	12.9
1.70V	444.2	363.2	228.0	131.6	78.4	61.5	48.7	41.7	29.1	24.3	12.7
1.75V	413.9	342.9	220.2	127.5	76.0	60.0	47.7	40.8	28.7	24.0	12.6
1.80V	381.2	321.1	212.6	123.4	73.7	58.3	46.5	39.9	28.3	23.7	12.5
1.85V	317.1	270.2	184.9	111.3	67.9	54.2	43.4	37.4	26.6	22.4	11.8

(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 C₁₀ should reach 95% after the first cycle and 100% after the third cycle.



EV12-120(12V120Ah)



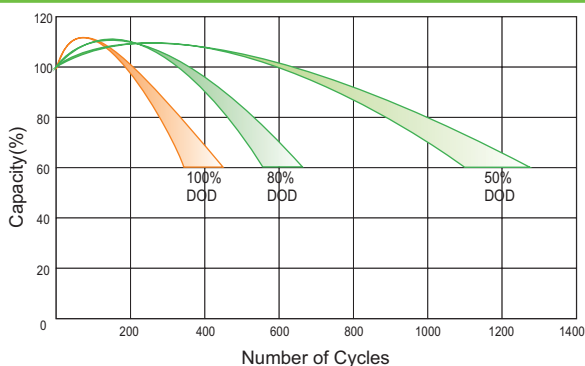
Charge Characteristic Curve for Cycle Use(IUUU)



Charge Characteristic Curve For Cycle Use(III)



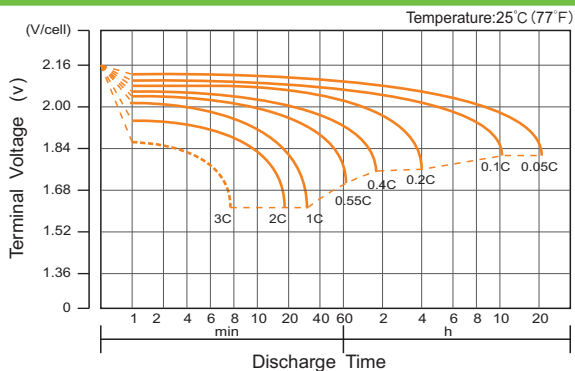
Cycle Life in Relation to Depth of Discharge



Storage Characteristics



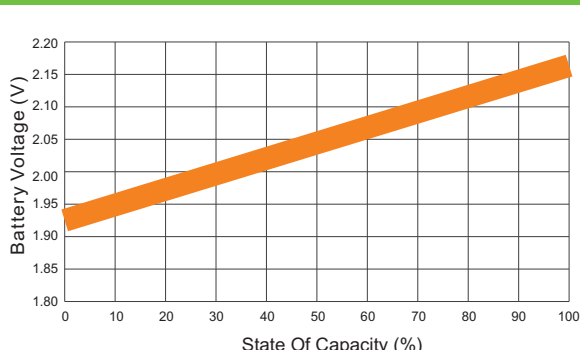
Discharge Characteristics Curve



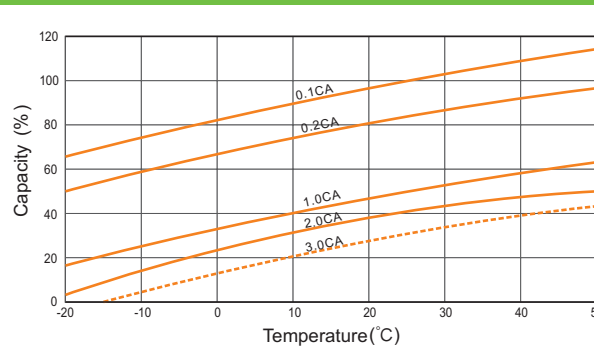
Relationship Between Charging Voltage and Temperature



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



Temperature Effects on Capacity



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