



EV12-55(12V55Ah)



Specification



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.



Cells Per Unit	6
Voltage Per Unit	12
Capacity	55Ah@10hr-rate to 1.80V per cell @25°C
Weight	Approx. 16.5 Kg (Tolerance ±3.0%)
Internal Resistance	Approx. 7.0 mΩ
Terminal	F15(M6)/F11(M6)
Max. Discharge Current	550A (5 sec)
Cold Cranking Ampere(CCA)	360A
Maxi. Charging Current	16.5A
Reference Capacity	C3 42.6AH C5 48.1AH C10 55.0AH C20 58.2AH
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.

Dimensions

Length	229±2mm (9.02 inches)
Width	138±2mm (5.43 inches)
Height	211±2mm (8.31 inches)
Total Height	216±2mm (8.50 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	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	185.0	139.6	105.0	61.43	33.94	20.04	15.53	12.20	10.39	6.98	5.80	3.04
1.65V	178.3	131.9	100.4	58.98	32.78	19.40	15.05	11.87	10.12	6.90	5.73	2.99
1.70V	169.6	121.4	94.1	56.37	31.71	18.76	14.64	11.55	9.85	6.80	5.65	2.95
1.75V	158.5	111.2	87.52	53.88	30.55	18.11	14.20	11.26	9.61	6.70	5.57	2.91
1.80V	144.4	100.6	80.81	51.50	29.38	17.46	13.76	10.93	9.36	6.59	5.50	2.89
1.85V	127.0	82.24	67.06	44.36	26.35	16.00	12.72	10.16	8.73	6.18	5.18	2.74

Constant Power Discharge Characteristics : WPC(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	318.4	237.3	183.6	111.6	63.8	38.0	29.7	23.4	20.0	13.6	11.4	5.98
1.65V	315.1	228.6	178.1	108.2	61.9	37.0	28.9	22.9	19.6	13.5	11.3	5.89
1.70V	303.1	214.3	169.3	104.5	60.3	35.9	28.2	22.3	19.1	13.3	11.1	5.83
1.75V	288.2	199.7	159.9	100.9	58.5	34.8	27.5	21.9	18.7	13.2	11.0	5.76
1.80V	267.2	183.9	149.7	97.4	56.5	33.8	26.7	21.3	18.3	13.0	10.9	5.71
1.85V	239.3	153.0	126.0	84.7	51.0	31.1	24.8	19.9	17.1	12.2	10.2	5.43

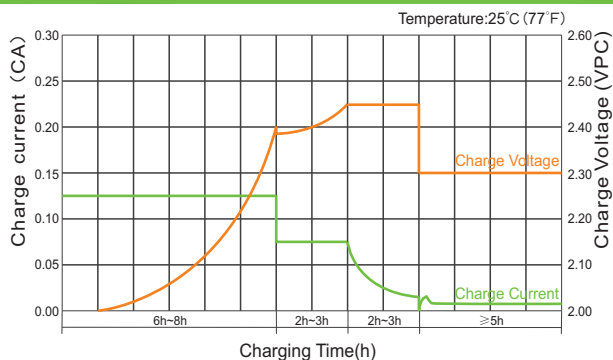
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values. The battery must be fully charged before the capacity test. The C₁₀ should reach 95% after the first cycle and 100% after the third cycle.



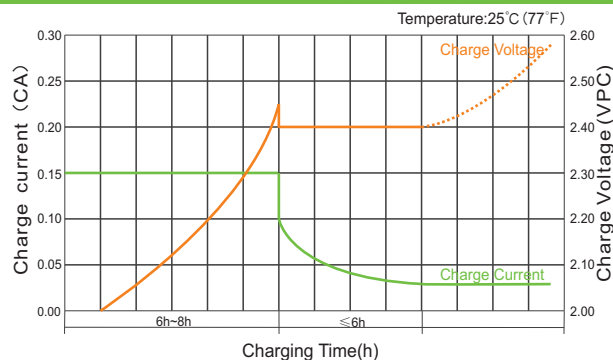
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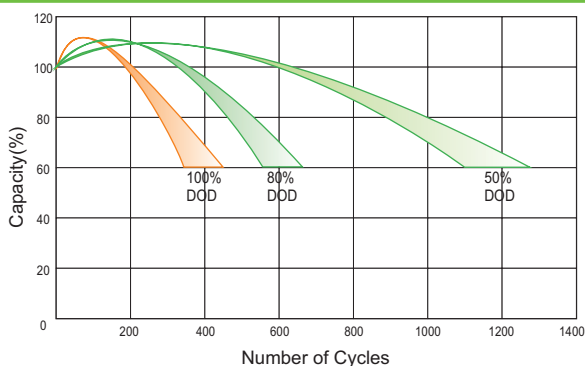
Charge Characteristic Curve for Cycle Use(IIUU)



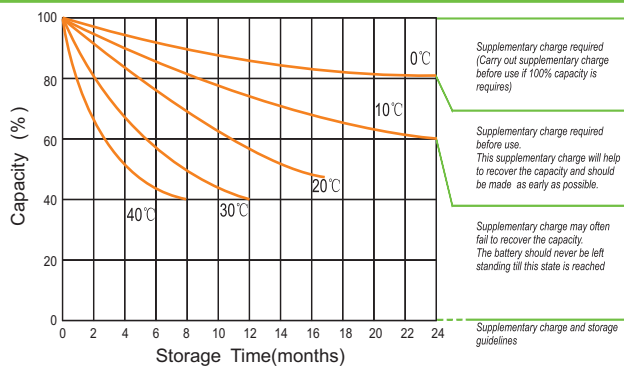
Charge Characteristic Curve For Cycle Use(III)



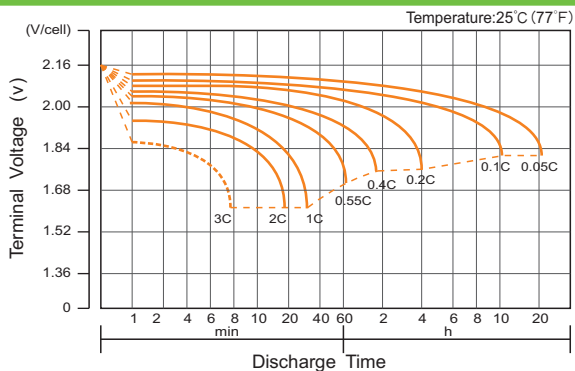
Cycle Life in Relation to Depth of Discharge



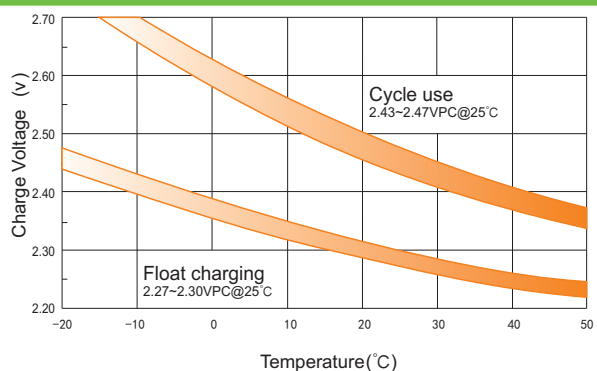
Storage Characteristics



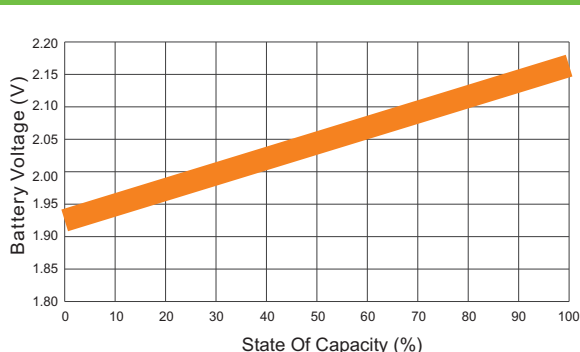
Discharge Characteristics Curve



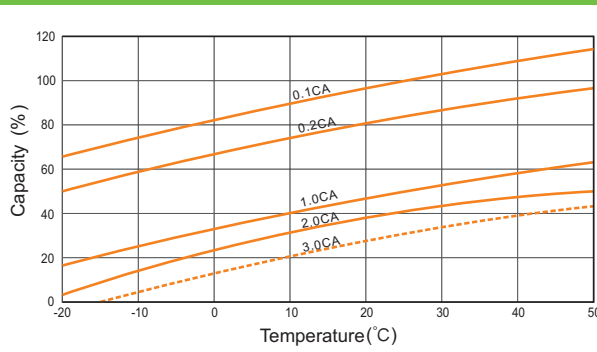
Relationship Between Charging Voltage and Temperature



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.