



EV12-22(12V22Ah)



Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	22Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 6.20 Kg (Tolerance ±5.0%)
Internal Resistance	Approx. 14.0 mΩ
Terminal	F13-BP(M5)
Max. Discharge Current	264A (5 sec)
Cold Cranking Ampere(CCA)	190A
Maxi. Charging Current	6.6A
Reference Capacity	C3 17.2AH C5 18.9AH C10 20.8AH C20 22.0AH
Float Charging Voltage	13.7 V~13.9 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.



ISO 9001



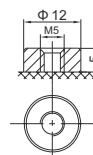
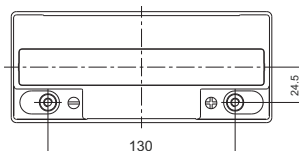
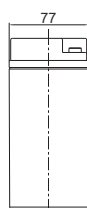
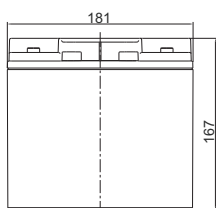
ISO 14001



OHSAS 18001



Dimensions



F13-BP TERMINAL

Length	181±2mm (7.13 inches)
Width	77±2mm (3.03 inches)
Height	167±2mm (6.57 inches)
Total Height	167±2mm (6.57 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	91.98	60.30	44.92	25.82	15.16	8.647	6.107	4.775	3.986	2.693	2.228	1.144
1.65V	88.58	58.30	43.57	25.28	14.87	8.500	6.014	4.709	3.936	2.663	2.205	1.134
1.70V	84.15	55.67	41.81	24.56	14.49	8.305	5.890	4.622	3.870	2.623	2.175	1.120
1.75V	78.26	52.16	39.43	23.59	13.97	8.038	5.719	4.502	3.780	2.567	2.134	1.100
1.80V	70.43	47.47	36.24	22.25	13.26	7.669	5.483	4.334	3.653	2.490	2.076	1.074
1.85V	59.87	41.06	31.84	20.36	12.24	7.140	5.143	4.092	3.470	2.378	1.992	1.035

Constant Power Discharge Characteristics : WPC(25°C)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	156.0	102.5	78.52	46.90	28.34	16.39	11.66	9.17	7.68	5.26	4.38	2.25
1.65V	154.2	101.7	77.77	46.60	28.10	16.23	11.56	9.09	7.63	5.22	4.34	2.24
1.70V	148.1	98.23	75.27	45.53	27.48	15.90	11.35	8.94	7.51	5.14	4.29	2.21
1.75V	140.2	93.70	72.04	44.18	26.63	15.46	11.06	8.74	7.36	5.05	4.21	2.17
1.80V	128.4	86.75	67.14	42.09	25.39	14.83	10.65	8.45	7.14	4.91	4.10	2.13
1.85V	111.1	76.37	59.82	38.89	23.61	13.88	10.03	8.00	6.81	4.69	3.94	2.05

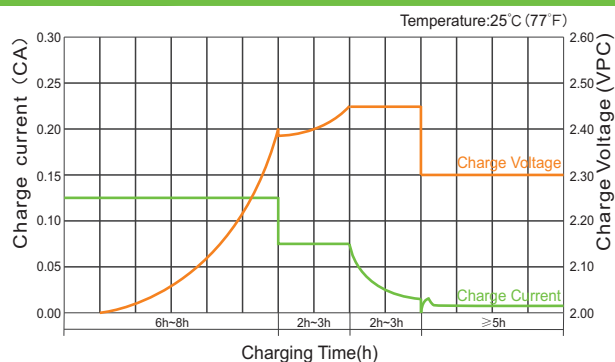
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

The battery must be fully charged before the capacity test. The C₂₀ should reach 95% after the first cycle and 100% after the third cycle.

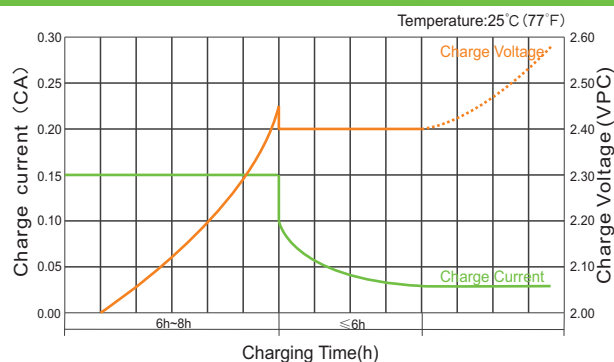
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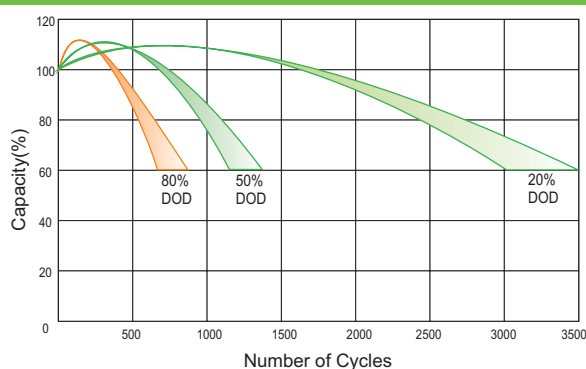
Charge Characteristic Curve for Cycle Use(IUUU)



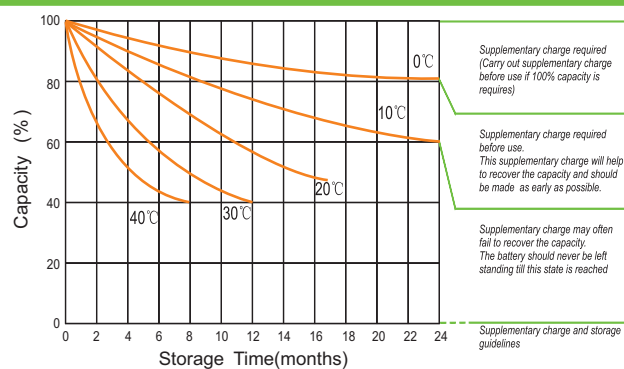
Charge Characteristic Curve For Cycle Use(IUI)



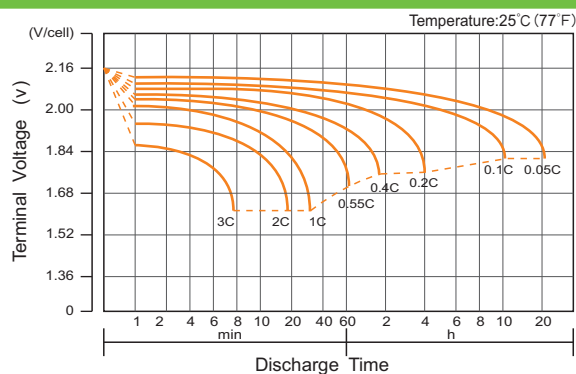
Cycle Life in Relation to Depth of Discharge



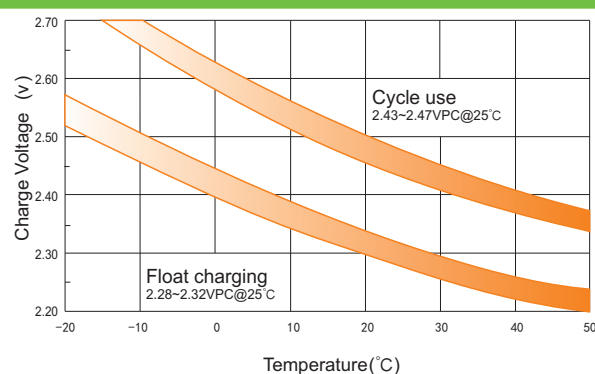
Storage Characteristics



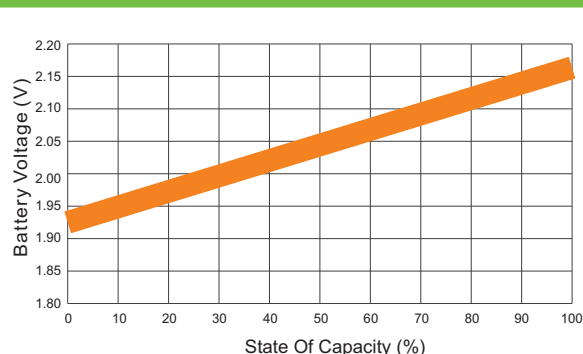
Discharge Characteristics Curve



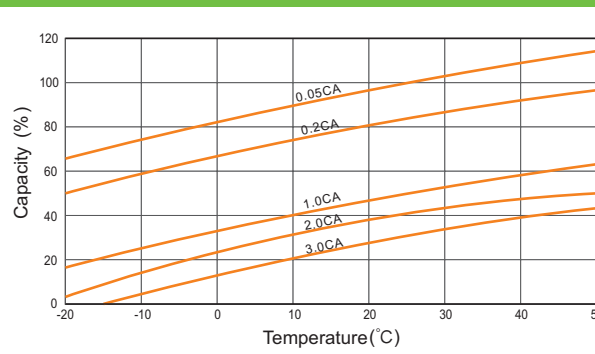
Relationship Between Charging Voltage and Temperature



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.

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