



# EV6-400(6V400Ah)



## Specification

<b>Cells Per Unit</b>	3
<b>Voltage Per Unit</b>	6V
<b>Capacity</b>	400Ah@20hour-rate to 1.75V per cell @25°C
<b>Weight</b>	Approx. 57.0 Kg (Tolerance ±5%)
<b>Internal Resistance</b>	≤1.8 mΩ (Full Charge Condition @25°C)
<b>Terminal</b>	Default F22(M8), F14(M8) Optional
<b>Max. Discharge Current</b>	4000A (5 sec)
<b>Cold Cranking Ampere(CCA)</b>	800A
<b>Maxi. Charging Current</b>	120.0A
<b>Reference Capacity</b>	C <sub>3</sub> 300.0Ah C <sub>5</sub> 340.0Ah C <sub>10</sub> 380.0Ah C <sub>20</sub> 400.0Ah
<b>Float Charging Voltage</b>	6.80 V~6.90 V @ 25°C Temperature Compensation: -3mV/°C/Cell
<b>Cycle Use Voltage</b>	7.30 V~7.40 V @ 25°C Temperature Compensation: -4mV/°C/Cell
<b>Operating Temperature Range</b>	Discharge: -20°C~60°C Charge: 0°C~50°C Storage: -20°C~60°C
<b>Normal Operating Temperature Range</b>	25°C ±5°C
<b>Self Discharge</b>	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.
<b>Container Material</b>	A.B.S. UL94-HB, UL94-V0 Optional.



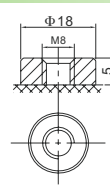
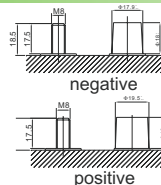
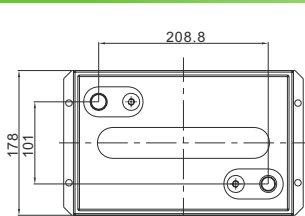
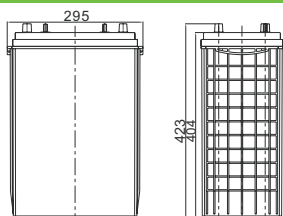
EV ( Electric Vehicle ) series is specially designed for frequent discharge deep cycle application. By using the specially designed active material, strong grids and thick plate construction, the EV series battery offers reliable performance in high load situations and could provide competitive cycle 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    ISO 45001



## Dimensions



Length	295±2mm (11.6 inches)
Width	178±2mm (7.01 inches)
Height	404±2mm (15.9 inches)
Total Height	423±2mm (16.7 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

F22 TERMINAL    F14 TERMINAL    Unit: mm

If F22 terminal is selected, terminal torque :AP is 5.6~7.9 N·m / M8 Stud is 6.6~8.5N·m

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

F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	424.5	244.4	144.9	112.8	88.7	75.5	49.6	40.1	20.8
1.65V	407.5	236.0	140.3	109.3	86.3	73.5	49.0	39.6	20.5
1.70V	389.5	228.3	135.7	106.3	83.9	71.6	48.3	39.0	20.2
1.75V	372.3	220.0	131.0	103.2	81.8	69.8	47.6	38.5	20.0
1.80V	355.8	211.6	126.3	100.0	79.4	68.0	46.8	38.0	19.8
1.85V	306.5	189.8	115.7	92.4	73.8	63.4	43.9	35.8	18.8

### Constant Power Discharge Characteristics : W/Cell(25°C)

F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	770.9	459.3	274.7	215.4	170.2	145.4	96.9	78.8	41.0
1.65V	747.9	446.1	267.2	209.7	166.2	142.2	96.0	78.0	40.4
1.70V	722.0	434.3	259.9	204.9	162.3	139.0	94.7	76.9	40.0
1.75V	697.2	420.9	251.9	199.6	158.8	136.0	93.6	76.0	39.5
1.80V	673.1	407.2	244.2	194.2	154.7	132.9	92.2	75.1	39.2
1.85V	585.5	367.4	224.9	180.3	144.4	124.4	86.8	70.8	37.3

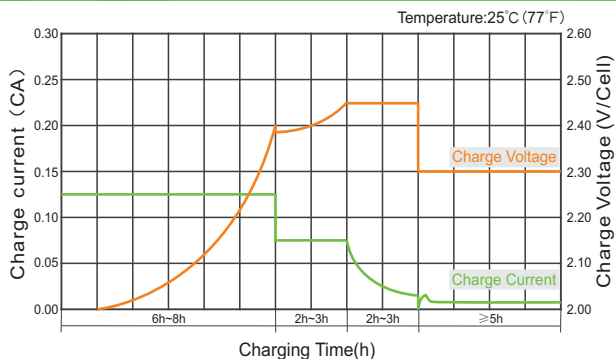
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values. The battery must be fully charged before the capacity test. The C<sub>20</sub> should reach 95% after the first cycle and 100% after the third cycle. If F22 terminal is selected and the discharge current is more than 0.25C, the threaded terminal of terminal F22 shall not be used in connection, but the lead pole shall be connected.



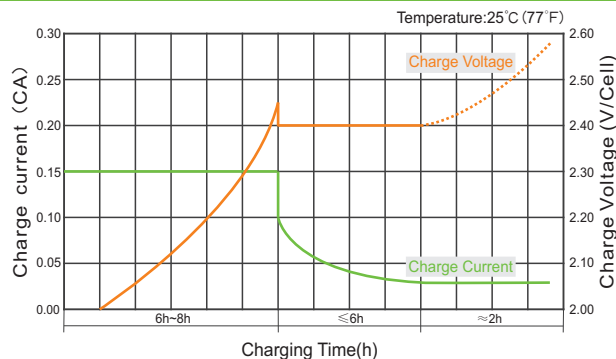
**EV6-400(6V400Ah)**



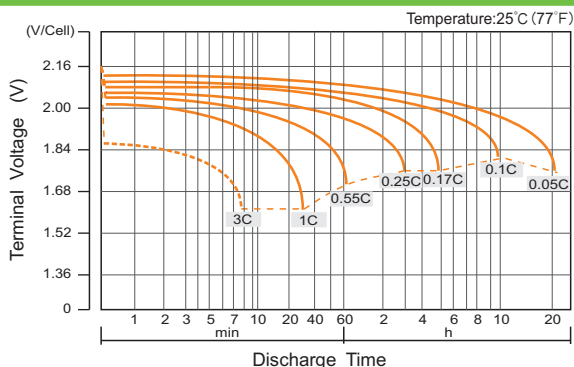
**Charge Characteristic Curve for Cycle Use(IUUU)**



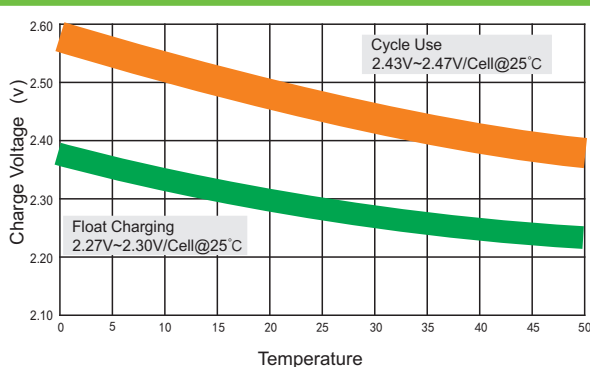
**Charge Characteristic Curve For Cycle Use(III)**



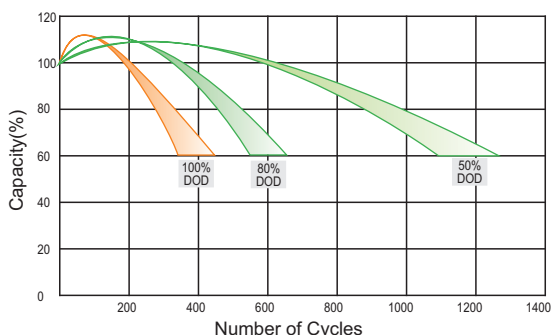
**Discharge Characteristics Curve**



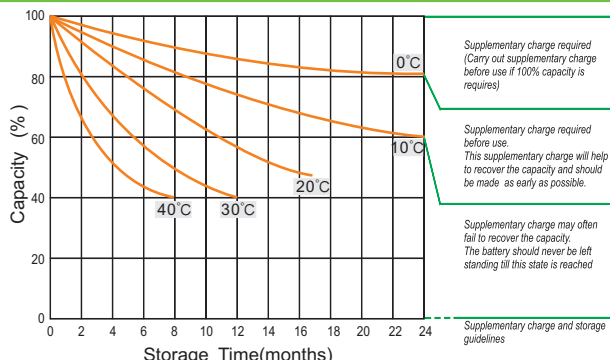
**Relationship Between Charging Voltage and Temperature**



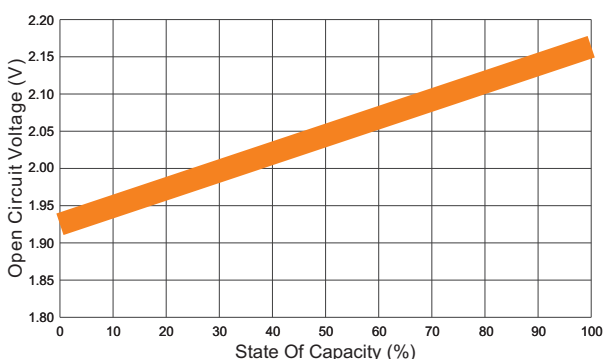
**Cycle Life in Relation to Depth of Discharge**



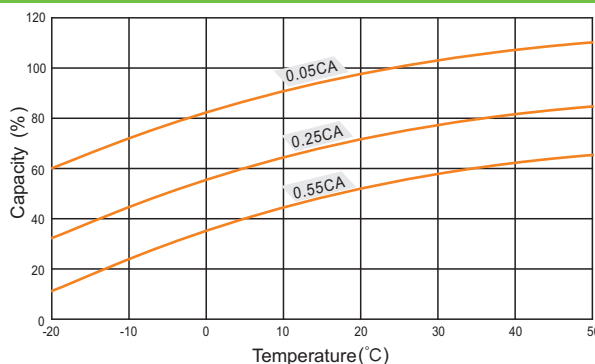
**Storage Characteristics**



**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.