



# EV6-400(6V400Ah)



## Specification

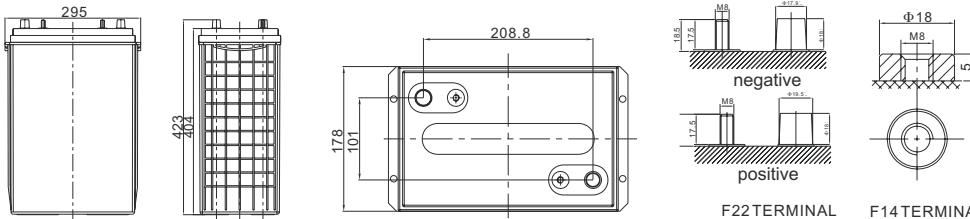
Cells Per Unit	3
Voltage Per Unit	6
Capacity	400Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 57.0 Kg (Tolerance ±3.0%)
Internal Resistance	Approx. 1.8 mΩ
Terminal	F14(M8)/F22(M8)
Max. Discharge Current	4000A (5 sec)
Cold Cranking Ampere(CCA)	800A
Maxi. Charging Current	120.0A
Reference Capacity	C3 292.4AH
	C5 329.6AH
	C10 377.0AH
	C20 400.0AH
Float Charging Voltage	6.8 V~6.9 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	7.3 V~7.4 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	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

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

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

F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	400.5	232.9	137.5	106.6	83.7	71.3	47.9	39.8	20.8
1.65V	384.5	224.9	133.1	103.3	81.5	69.4	47.4	39.3	20.5
1.70V	367.5	217.6	128.7	100.5	79.3	67.6	46.6	38.7	20.2
1.75V	351.2	209.6	124.2	97.5	77.2	65.9	46.0	38.2	20.0
1.80V	335.7	201.6	119.8	94.4	75.0	64.2	45.2	37.7	19.8
1.85V	289.1	180.8	109.8	87.3	69.7	59.9	42.4	35.5	18.8

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

F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	727.4	437.7	260.6	203.5	160.8	137.4	93.5	78.3	41.0
1.65V	705.7	425.1	253.6	198.1	157.0	134.3	92.7	77.4	40.4
1.70V	681.3	413.8	246.5	193.5	153.3	131.3	91.5	76.4	40.0
1.75V	657.8	401.1	239.0	188.6	150.0	128.4	90.4	75.4	39.5
1.80V	635.1	388.0	231.6	183.4	146.2	125.6	89.0	74.6	39.2
1.85V	552.4	350.1	213.4	170.3	136.4	117.5	83.8	70.3	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.



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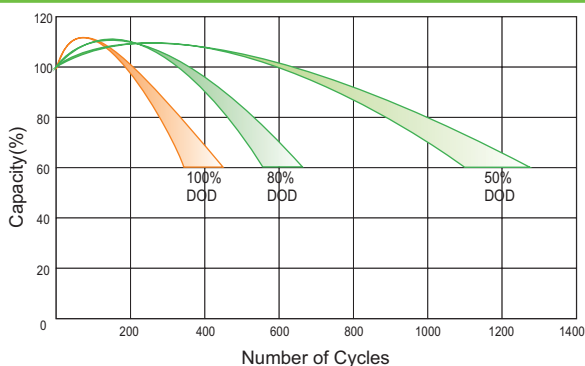
**Charge Characteristic Curve for Cycle Use(IUUU)**



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



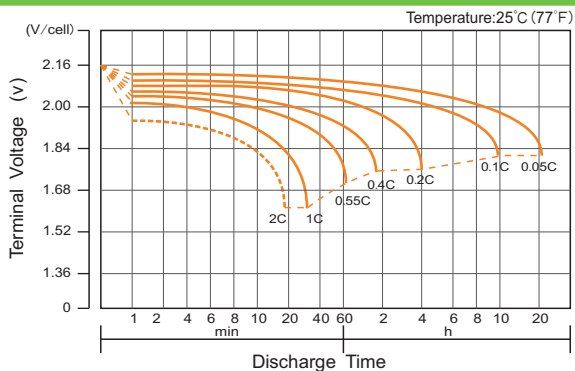
**Cycle Life in Relation to Depth of Discharge**



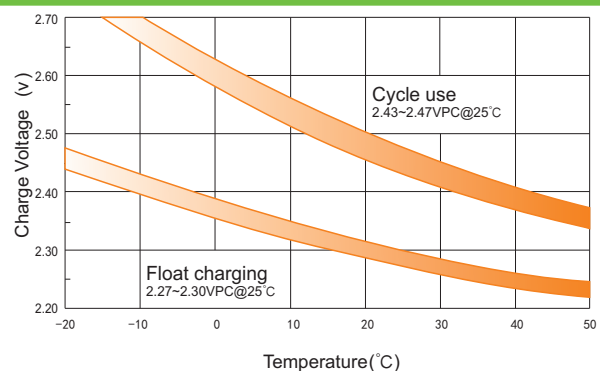
**Storage Characteristics**



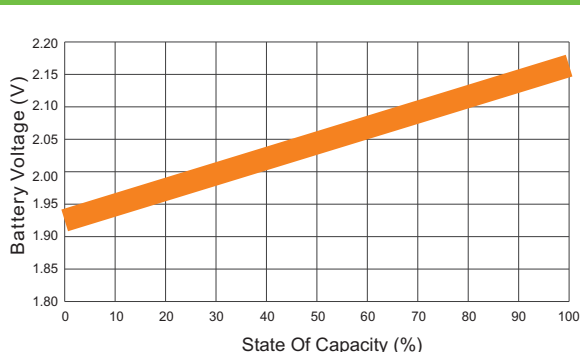
**Discharge Characteristics Curve**



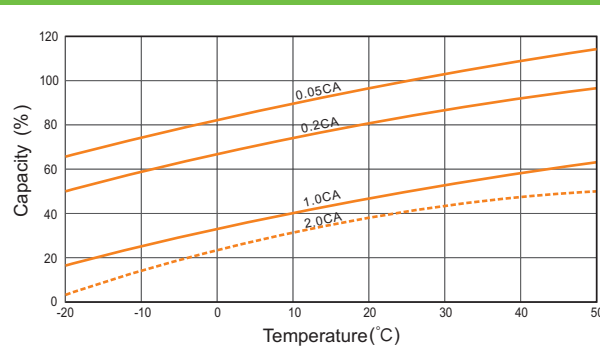
**Relationship Between Charging Voltage and Temperature**



**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.