



# EV12-180(12V180Ah)



## Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	180Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 51.5 Kg (Tolerance ± 1.5%)
Internal Resistance	Approx. 4.0 mΩ
Terminal	F12(M8)/F5(M6)
Max. Discharge Current	1800A (5 sec)
Cold Cranking Ampere(CCA)	690A
Maximum Charging Current	54.0 A
Reference Capacity	C3 139.5AH
	C5 158.5AH
	C10 171.0AH
	C20 180.0AH
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. Suitable for Electric Vehicle and Golf cart; Industrial equipment, Floor machines, Forklifts, Aerial lifts, and Robotics; Marine, RV, and no-idle solutions; Mobility and Medical equipment; and most outdoor application.



ISO 9001



ISO 14001



OHSAS 18001

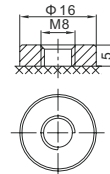
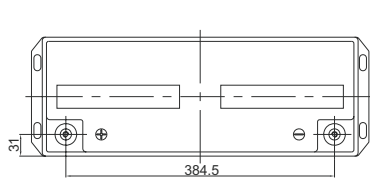
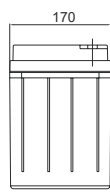
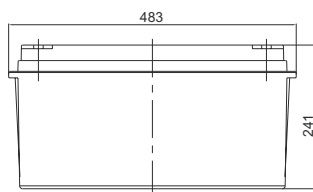


MH 28539



G4M20206-0910-E-16

## Dimensions



F12 Terminal

Length	483±2mm (19.0 inches)
Width	170±2mm (6.69 inches)
Height	241±2mm (9.49 inches)
Total Height	241±2mm (9.49 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	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	173.4	106.9	65.2	49.6	39.5	33.4	22.1	18.4	9.4
1.65V	169.8	104.9	64.1	48.9	38.9	33.0	21.9	18.2	9.27
1.70V	164.9	102.2	62.6	47.9	38.2	32.4	21.5	17.9	9.16
1.75V	158.4	98.5	60.6	46.5	37.2	31.7	21.1	17.6	9.00
1.80V	149.4	93.5	57.8	44.6	35.8	30.6	20.5	17.1	8.78
1.85V	136.7	86.3	53.8	41.8	33.8	29.1	19.5	16.4	8.46

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

F.V/Time	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	315	200	124	94.8	75.7	64.3	43.2	36.1	18.4
1.65V	313	198	122	93.9	75.1	63.9	42.9	35.8	18.3
1.70V	306	194	120	92.2	73.9	62.9	42.3	35.3	18.1
1.75V	297	188	117	89.9	72.2	61.7	41.4	34.7	17.8
1.80V	283	179	112	86.5	69.8	59.8	40.3	33.8	17.4
1.85V	261	167	105	81.5	66.1	57.0	38.6	32.5	16.8

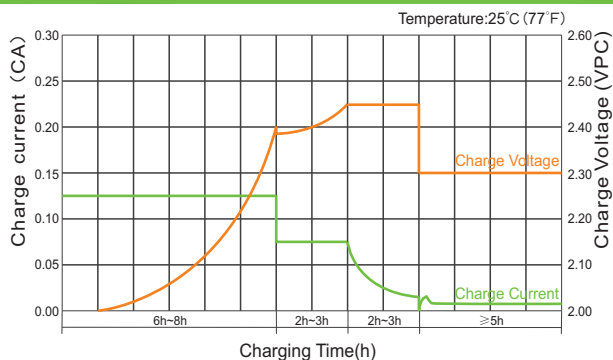
(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.



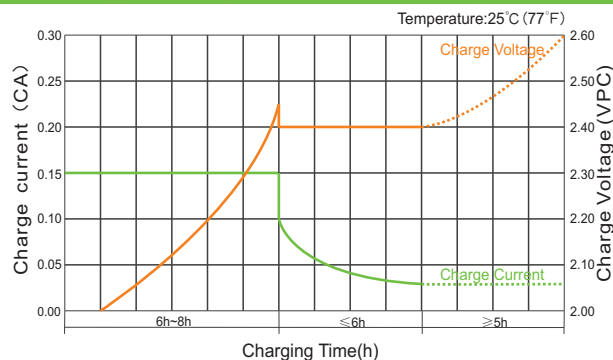
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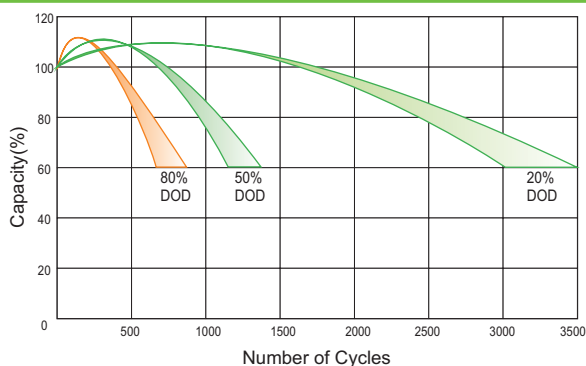
## Charge Characteristic Curve for Cycle Use(IIUU)



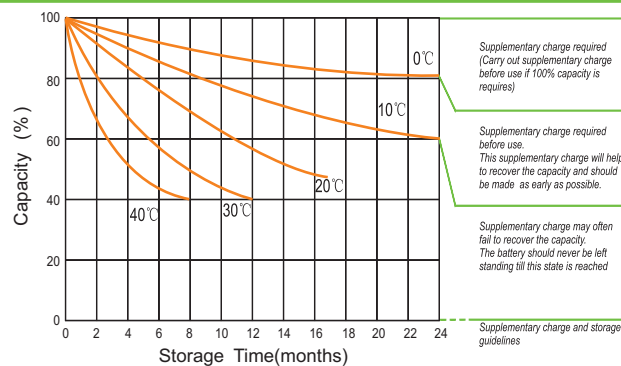
## Charge Characteristic Curve For Cycle Use(III)



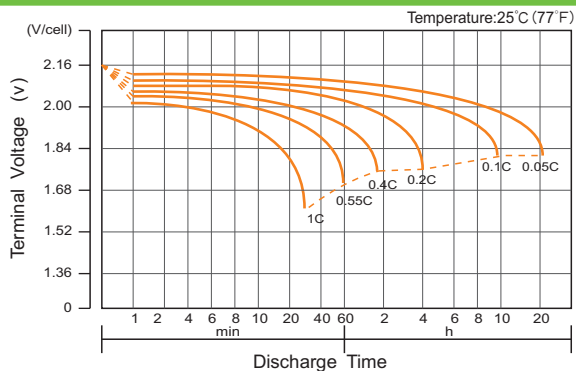
## Cycle Life in Relation to Depth of Discharge



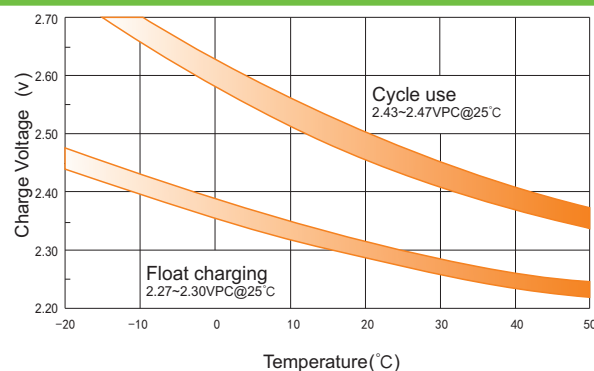
## Storage Characteristics



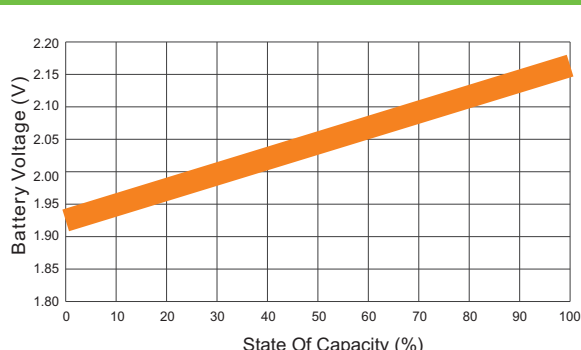
## Discharge Characteristics Curve



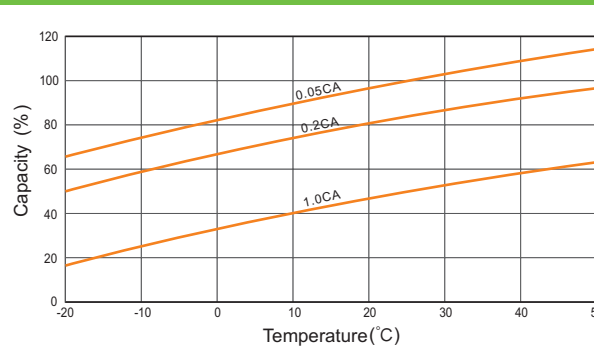
## Relationship Between Charging Voltage and Temperature



## 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.