

# DC12-120S (12V114Ah)

**RITAR®**

## Specification



DC (Deep Cycle) series batteries provide superior high integrity and reliability. It is specially designed for frequent cyclic charge and discharge. By using strong grids, thick plate and specially active material are designed for repeated deep-discharge applications. The DC series batteries offer 30% more cyclic life than the standby series. It is suitable for solar and wind renewable energy storage, mobility and medical equipment, V, telecom, broadband and cable TV, UPS systems etc.



ISO 9001

ISO 14001

OHSAS 18001



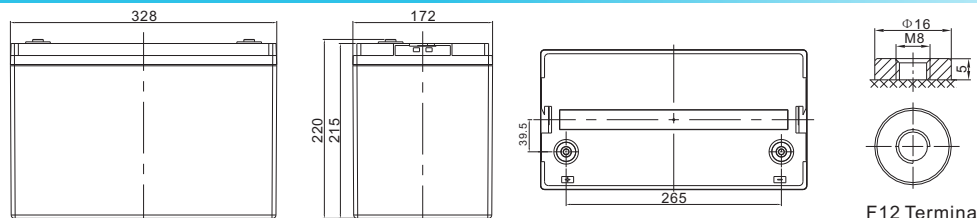
MH 28539



G4M20206-0910-E-16

<b>Cells Per Unit</b>	6
<b>Voltage Per Unit</b>	12
<b>Capacity</b>	114Ah@20hr-rate to 1.75V per cell @25°C
<b>Weight</b>	Approx. 31.5 Kg (Tolerance ±2%)
<b>Internal Resistance</b>	Approx. 4.2 mΩ
<b>Terminal</b>	F12(M8)/F5(M8)
<b>Max. Discharge Current</b>	1140A (5 sec)
<b>Design Life</b>	12 years (floating charge)
<b>Maximum Charging Current</b>	34.5 A
<b>Reference Capacity</b>	C3 89.1AH C5 100.5AH C10 114.0AH C20 120.0AH
<b>Float Charging Voltage</b>	13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell
<b>Cycle Use Voltage</b>	14.6 V~14.8 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.

## Dimensions



Length	328±2mm (12.9 inches)
Width	172±2mm (6.77 inches)
Height	215±2mm (8.46 inches)
Total Height	220±2mm (8.66 inches)
Terminal	Value
M5	6~7 N*m
M6	8~10 N*m
M8	10~12 N*m

F12 Terminal

Unit: mm

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

F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	251.9	196.1	114.8	67.6	41.7	31.7	25.1	21.2	14.4	12.2	6.24
1.65V	243.5	190.2	112.4	66.3	41.0	31.3	24.8	20.9	14.3	12.1	6.18
1.70V	232.5	182.5	109.2	64.6	40.1	30.6	24.3	20.5	14.1	11.9	6.10
1.75V	217.9	172.2	104.9	62.3	38.8	29.7	23.7	20.1	13.8	11.7	6.00
1.80V	198.3	158.2	99.0	59.1	37.0	28.5	22.8	19.4	13.4	11.4	5.85
1.85V	171.5	139.0	90.5	54.6	34.5	26.7	21.5	18.4	12.8	10.9	5.64

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

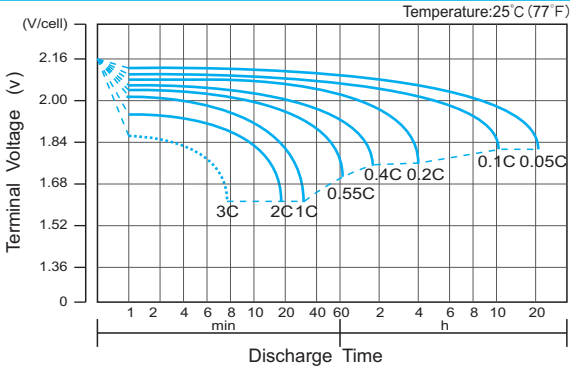
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	451	361	220	133	83.3	63.8	50.7	42.9	29.7	25.3	12.9
1.65V	447	357	218	132	82.5	63.2	50.3	42.6	29.5	25.1	12.8
1.70V	432	346	213	129	80.8	62.1	49.5	42.0	29.0	24.8	12.7
1.75V	412	331	207	125	78.6	60.5	48.4	41.2	28.5	24.4	12.5
1.80V	381	309	197	119	75.4	58.3	46.7	39.9	27.7	23.7	12.2
1.85V	336	275	182	111	70.5	54.9	44.3	38.0	26.5	22.8	11.8

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

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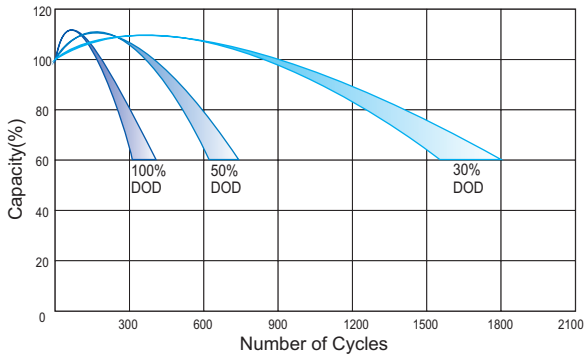
## Discharge Characteristics Curve



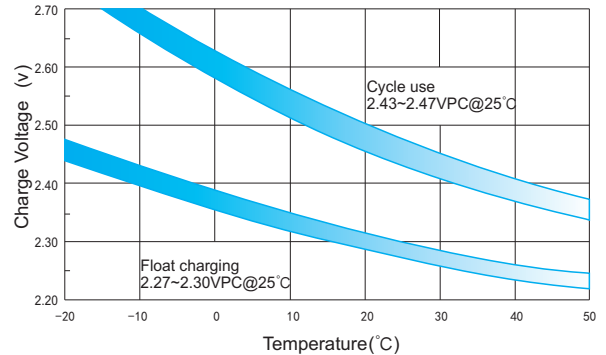
## Charge Characteristic Curve for Cycle Use(IU)



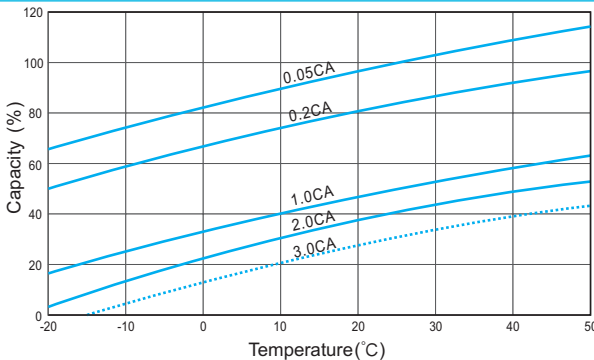
## Cycle Life in Relation to Depth of Discharge



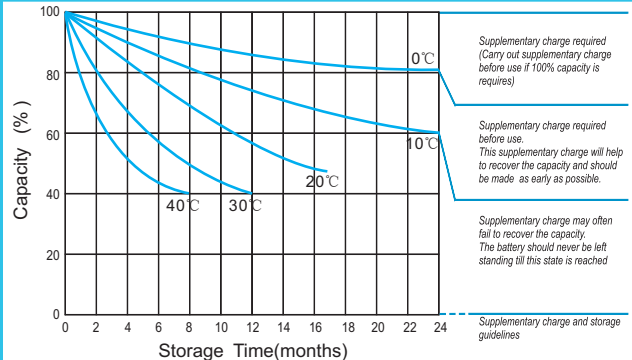
## Relationship Between Charging Voltage and Temperature



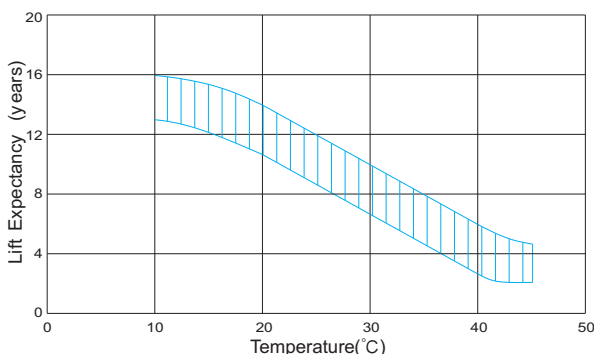
## Temperature Effects on Capacity



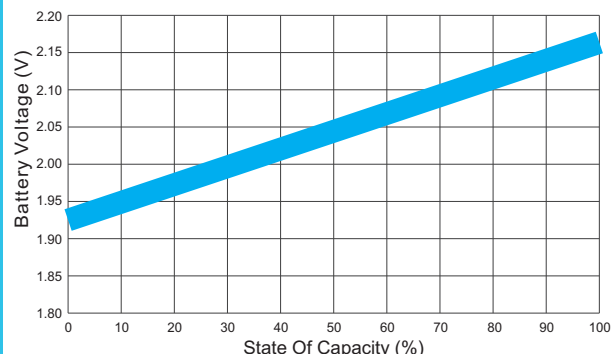
## Storage Characteristics



## Effect of Temperature on Long Term Life



## Relationship of OCV And State of Charge(20°C)



(Note) All above information shall be changed without prior notice, Ritar reserves the right to explain and update the latest information.