

# DG12-100S(12V100Ah)



## Specification

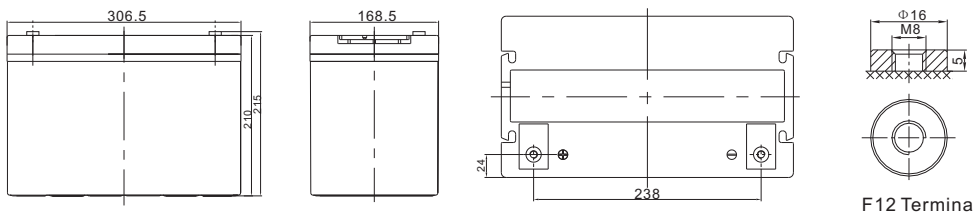
Cells Per Unit	6
Voltage Per Unit	12
Capacity	100Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 27.0 Kg (Tolerance ±3.0%)
Internal Resistance	Approx. 8.0 mΩ
Terminal	F15(M6)/F12 (M8)
Max. Discharge Current	900A (5 sec)
Design Life	15 years (floating charge)
Max. Charging Current	18.0 A
Reference Capacity	C3 68.4AH C5 77.0AH C10 88.0AH C20 100.0AH
Float Charging Voltage	13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.2 V~14.4 V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -40°C~60°C Charge: -20°C~50°C Storage: -40°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 2% at 20°C. Please charged batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



DG (Deep Cycle GEL) series is pure GEL battery with 15 years floating design life, it is ideal for standby or frequent cyclic discharge applications under extreme environments. By using strong grids, high purity lead and patented GEL electrolyte, the DG series offers excellent recovery capability after deep discharge under frequent cyclic discharge use, and it can offers 2 times cyclic life than the standard series. It is suitable for solar & wind system, marine, deep discharge UPS etc.



## Dimensions



Length	306.5±2mm (12.1 inches)
Width	168.5±2mm (6.63 inches)
Height	210±2mm (8.27 inches)
Total Height	215±2mm (8.46 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	158.8	130.1	86.2	54.3	33.2	24.9	19.8	16.7	11.3	9.28	5.20
1.65V	150.1	124.4	82.8	52.4	32.1	24.1	19.3	16.2	11.1	9.17	5.12
1.70V	138.2	116.5	79.1	50.7	31.1	23.5	18.8	15.8	11.0	9.03	5.06
1.75V	126.5	108.4	75.6	48.9	30.0	22.8	18.3	15.4	10.8	8.91	5.00
1.80V	114.5	100.1	72.3	47.0	28.9	22.0	17.8	15.0	10.6	8.80	4.95
1.85V	93.6	83.1	62.3	42.2	26.5	20.4	16.5	14.0	9.97	8.28	4.70

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

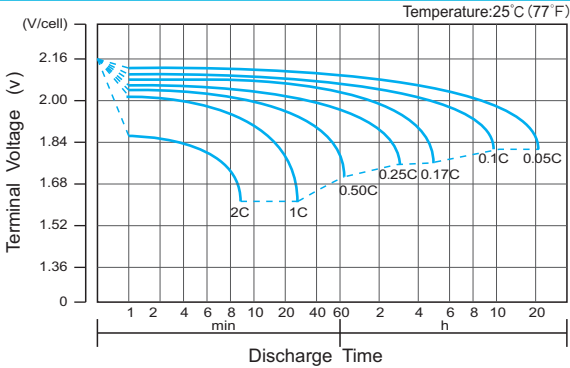
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	306.8	258.5	178.0	116.0	71.5	54.0	43.3	36.5	25.0	20.7	11.6
1.65V	291.9	248.4	172.4	112.8	69.5	52.7	42.3	35.7	24.7	20.5	11.5
1.70V	277.0	238.4	166.7	109.6	67.6	51.3	41.3	34.9	24.4	20.2	11.4
1.75V	258.1	225.1	161.0	106.3	65.5	50.0	40.4	34.1	24.1	20.0	11.2
1.80V	237.7	210.8	155.4	102.8	63.5	48.7	39.4	33.3	23.8	19.8	11.1
1.85V	197.7	177.4	135.2	92.8	58.5	45.2	36.7	31.2	22.4	18.6	10.6

(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.

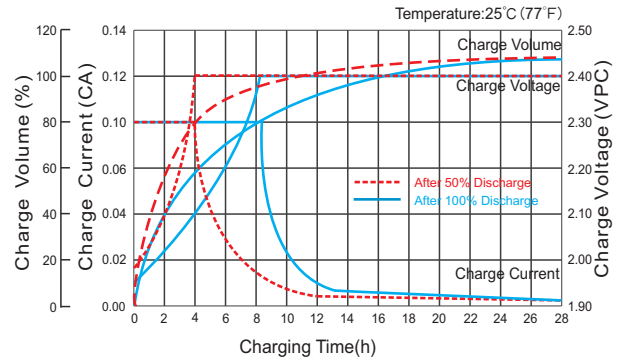
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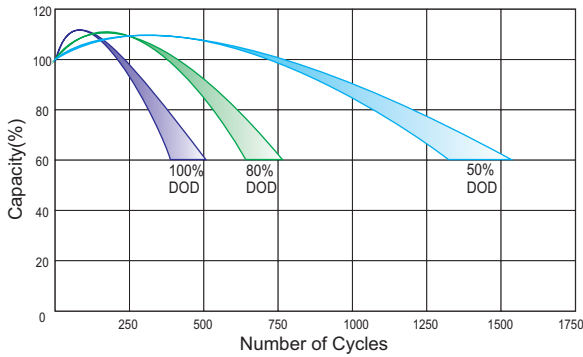
## Discharge Characteristics Curve



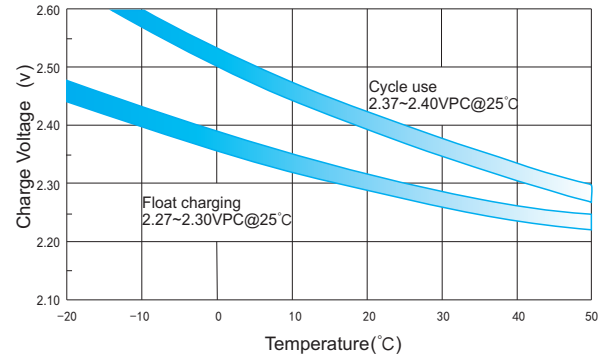
## Charge Characteristic Curve for Cycle Use(IU)



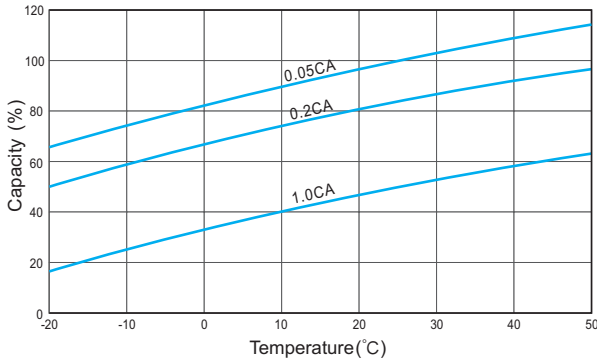
## Cycle Life in Relation to Depth of Discharge



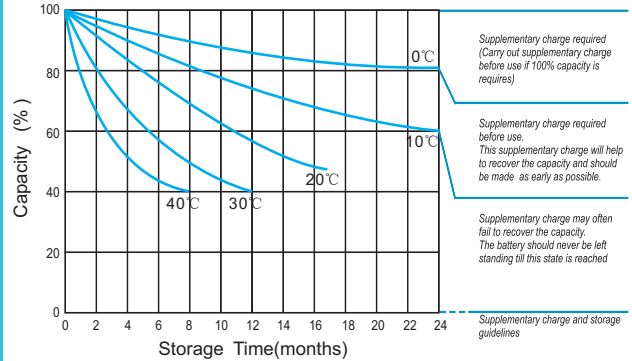
## Relationship Between Charging Voltage and Temperature



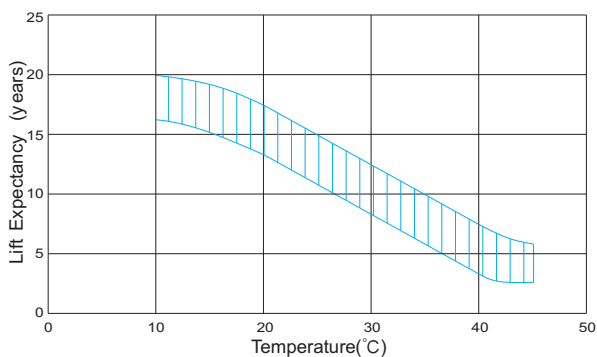
## Temperature Effects on Capacity



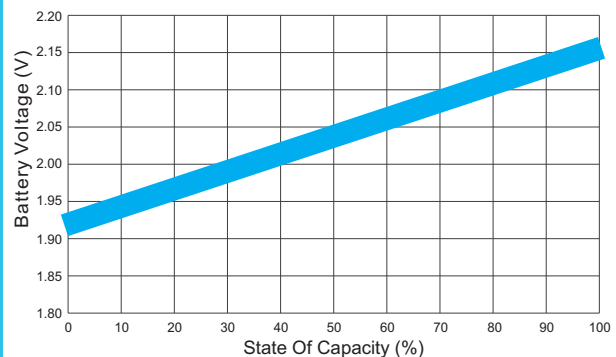
## Storage Characteristics



## 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.