

DG12-90 (12V90Ah)



Specification

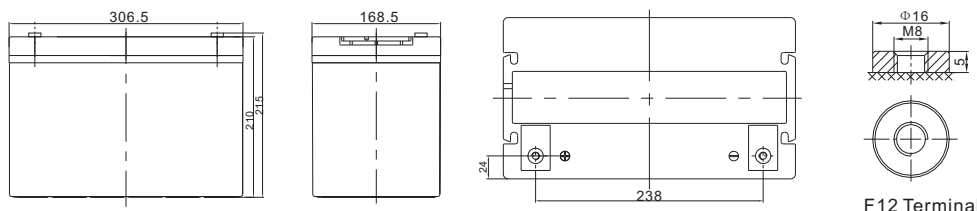
Cells Per Unit	6
Voltage Per Unit	12
Capacity	90Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 28.5 Kg (Tolerance ±2%)
Internal Resistance	Approx. 6.5mΩ
Terminal	F15(M6)/F12 (M8)
Max. Discharge Current	900A (5 sec)
Design Life	15 years (floating charge)
Maximum Charging Current	18A
Reference Capacity	C3 61.5AH C5 70.5AH C10 78.9AH C20 90.0AH
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 3% at 25°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 can deliver 450 cycles at 100% DOD. Suitable for solar & wind system, CATV, marine, RV and deep discharge UPS, and telecommunication, etc.



Dimensions



Length	306.5±1mm (12.1 inches)
Width	168.5±1mm (6.63 inches)
Height	210±1mm (8.27 inches)
Total Height	215±1mm (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	166.8	130.5	85.8	50.3	30.1	20.8	17.2	14.5	9.90	8.21	4.95
1.65V	158.7	127.9	84.4	50.1	29.9	20.7	17.1	14.4	9.82	8.13	4.77
1.70V	153.1	125.9	83.7	49.6	29.6	20.5	17.1	14.3	9.74	8.05	4.64
1.75V	143.0	121.2	83.9	49.1	29.4	20.5	16.9	14.1	9.66	7.97	4.50
1.80V	131.9	113.1	83.2	48.0	28.9	19.9	16.5	13.9	9.50	7.89	4.23
1.85V	119.3	102.6	78.7	45.6	27.6	19.0	15.7	13.3	9.09	7.66	4.05

Constant Power Discharge Characteristics : WPC(25°C)

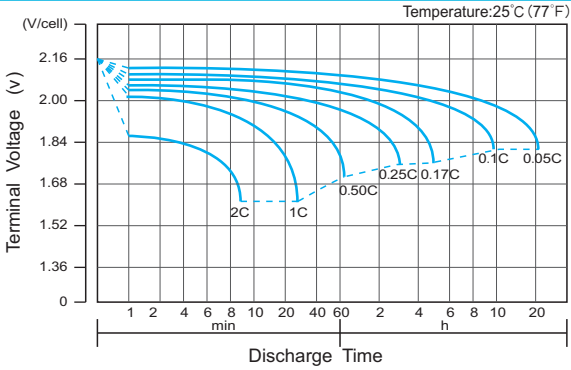
F.V/Time	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	296	237	161	96.9	59.1	41.2	34.2	28.8	19.7	16.4	8.75
1.65V	287	233	159	96.7	58.8	41.2	34.1	28.7	19.6	16.2	8.60
1.70V	279	231	159	95.9	58.4	41.0	34.1	28.6	19.5	16.1	8.44
1.75V	263	223	160	95.0	58.0	40.9	33.8	28.3	19.3	15.9	8.28
1.80V	246	208	159	93.3	57.3	39.8	33.0	27.8	19.0	15.8	8.12
1.85V	225	190	151	89.3	55.1	38.0	31.4	26.6	18.2	15.3	7.65

(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)



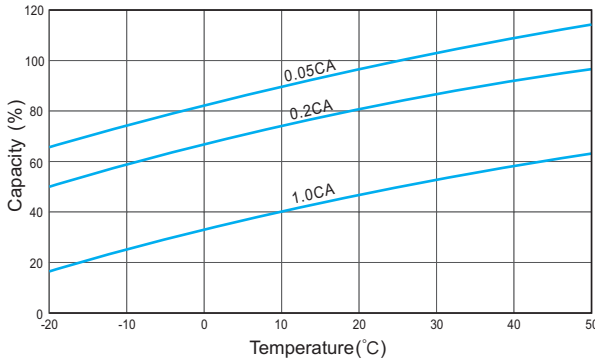
Cycle Life in Relation to Depth of Discharge



Relationship Between Charging Voltage and Temperature



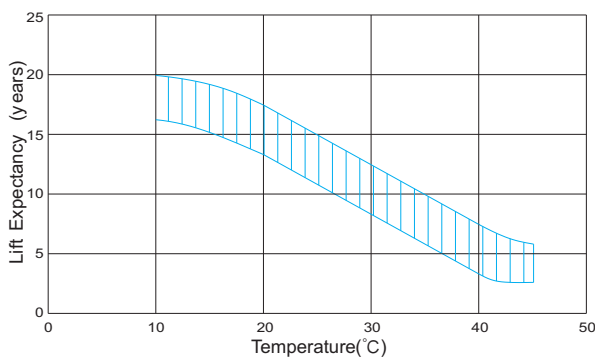
Temperature Effects on Capacity



Storage Characteristics



Effect of Temperature on Long Term Life



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

