

DG (Deep Cycle GEL) series is pure GEL battery with 12 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 after deep discharge under frequent cyclic discharge use, and can deliver 400 cycles at 100% DOD. Suitable for solar, CATV, marine, RV and deep discharge UPS, communication, and telecommunication, etc.

12V Voltage	100 Ah	Gel Technology	Deep Cycle
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Features and Benefits

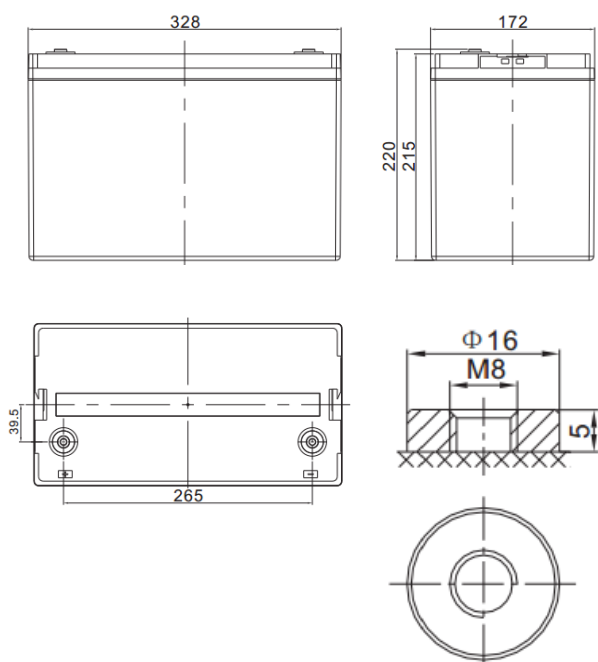
- Wide operating temperature range from -40°C to 60°C
- nano gel electrolyte with super-C additive plus heavy duty
- plates design inside
- Long life and high stability under high temp. environment (no air-con needed)

Applications

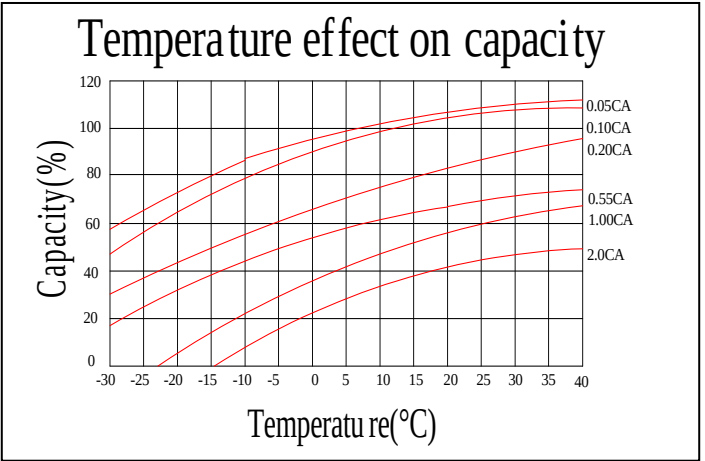
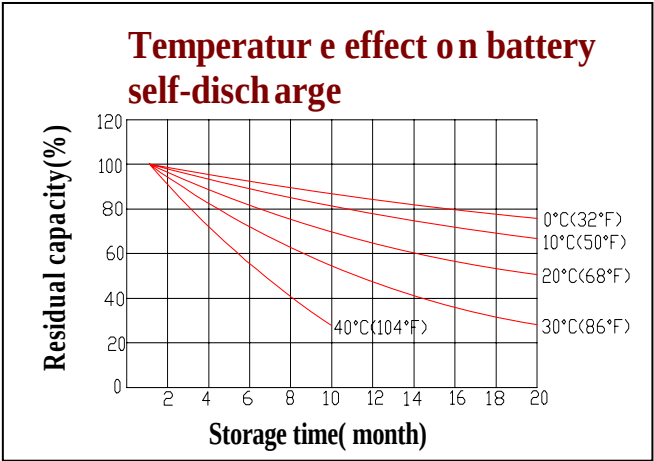
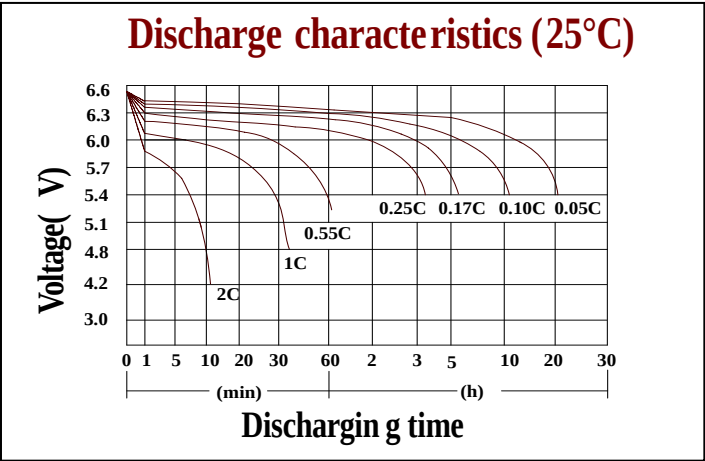
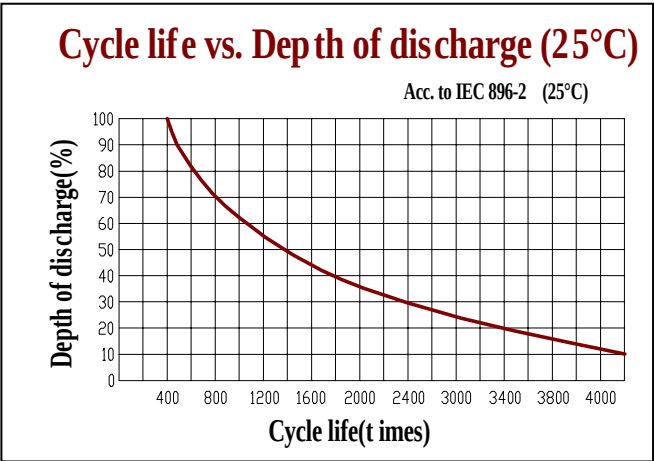
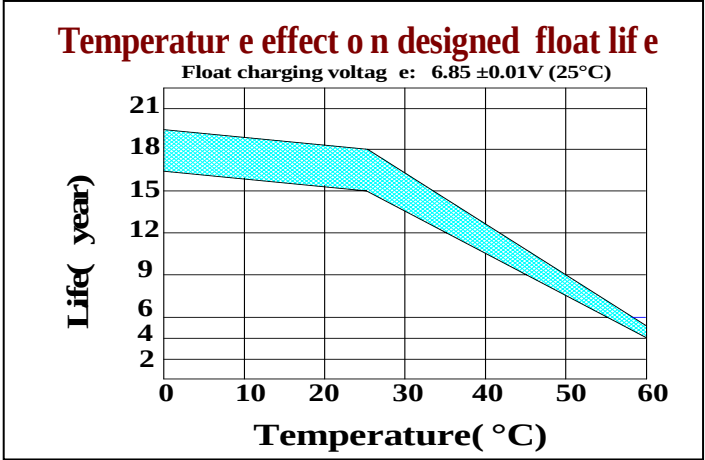
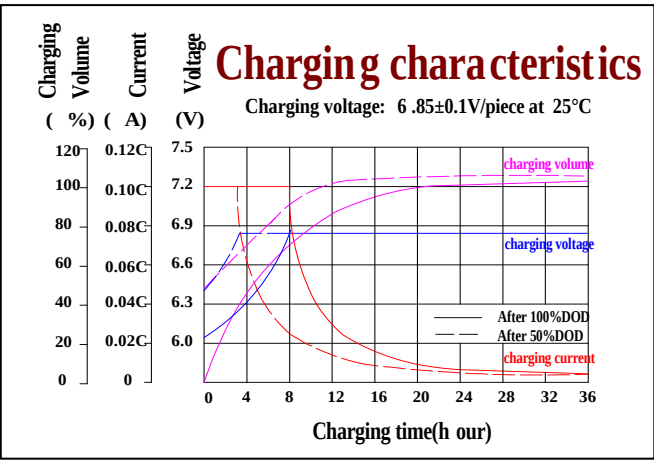
- Solar and wind energy system
- Golf/Utility/Neighborhood Electric Vehicle (NEV)
- Electric Powered Toys
- Marine
- Telecommunications
- UPS system
- Data center
- Power Utility
- RV

Technical Specifications

Designed Floating Life(20°C).....	12 year
Nominal Voltage.....	12V(6 cells per unit)
Nominal Capacity(25°C)	
20 hour rate(5.0A, 10.8V).....	100Ah
10 hour rate(9.0A, 10.8V).....	90Ah
5 hour rate(15.9A, 10.5V).....	79.5Ah
1 hour rate(55.6A, 9.6V).....	55.6Ah
Dimension(mm).....	L328 x W172 x H215 x TH220mm
Approx. Weight	30kg
Terminal Type.....	Female Copper Insert M8
Internal Resistance	
Fully Charged battery 77°F(25°C).....	7.5mΩ
Ambient Temperature	
Discharge.....	-25-60°C
Charge.....	-25-60°C
Storage.....	-25-45°C
Max.Discharge Current25°C(5s).....	540A
Capacity Affected by Temp.(10 hour)	
108% @40°C	
100% @25°C	
90% @0°C	
70% @-15°C	
Self Discharge@25°C per month.....	3%
Charge (Constant Voltage)@25°C	
Standby Use.....	13.6V-13.8V
Cycle Use.....	14.4V-14.9V
Initial charging current.....	less than 20A



Performance Characteristics



Battery Discharge

Discharge Constant Current per Cell (Amperes at 25°C)

F.V/Time	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	185.4	145.0	95.4	55.9	33.4	23.1	19.1	16.1	11.0	9.12	5.50
1.65V	176.4	142.1	93.8	55.6	33.2	23.0	19.0	16.0	10.9	9.03	5.30
1.70V	170.1	139.8	93.0	55.1	32.9	22.8	18.9	15.9	10.8	8.95	5.15
1.75V	158.9	134.7	93.2	54.6	32.7	22.7	18.8	15.7	10.7	8.86	5.00
1.80V	146.6	125.6	92.5	53.3	32.1	22.1	18.3	15.4	10.6	8.77	4.70
1.85V	132.5	114.0	87.4	50.7	30.7	21.1	17.4	14.8	10.1	8.51	4.50

Discharge Constant Power per Cell (Watts at 25°C)

F.V/Time	10min	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	329	264	178	108	65.7	45.8	38.0	32.0	21.9	18.2	9.73
1.65V	319	259	176	107	65.3	45.8	37.9	31.9	21.8	18.1	9.56
1.70V	311	256	177	107	64.9	45.6	37.9	31.8	21.6	17.9	9.38
1.75V	293	247	177	106	64.5	45.4	37.5	31.4	21.5	17.7	9.20
1.80V	273	231	176	104	63.6	44.2	36.7	30.9	21.1	17.5	9.03
1.85V	250	211	167	99.2	61.3	42.3	34.9	29.5	20.2	17.0	8.50

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

Construction

Component	Positive Plate	Negative Plate	Container & Cover	Separator	Safety valve	Terminal	Sealant	Electrolyte
Featuresl	Thick high Sn low Ca grid with special paste	Balanced Pb-Ca grid for improved recombination efficiency	ABS	Advanced AGM separator for high pressure cell design	Flame Si-Rubbe and aging resistan cer	Copper	Epoxy resin	Dilute high purity sulphuric acid with fumed Silica gel

