

SMART

SG12-300 GEL

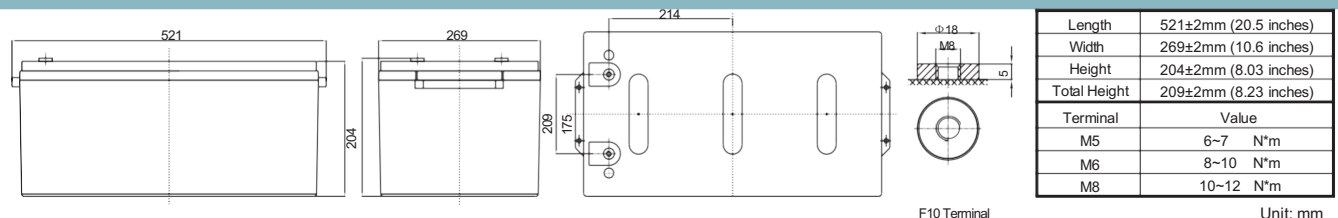
Specification

Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	300Ah@100hour-rate to 1.75V per cell @25°C
Weight	Approx. 67.0 Kg (Tolerance ± 5%)
Internal Resistance	Approx. 5 mΩ
Terminal	F10(M8)
Max. Discharge Current	2600A (5 sec)
Design Life	15 years (Float charging)
Max. Charging Current	52.0 A
Reference Capacity	C20 260.0AH C100 300.0AH
Standby Use 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: 0°C~50°C Storage: -40°C~60°C
Normal Operating Temperature Range	25°C ± 5°C
Self Discharge	SMART Valve Regulated Lead Acid (VRLA) GEL 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 charge batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



SG 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 SG series offers excellent recovery capability after deep discharge under frequent cyclic discharge use, and it offers 2 times cyclic life than the standard series. It is suitable for solar & wind system, marine, deep discharge UPS etc.

Dimensions



Constant Current Discharge Characteristics : A (25°C)

F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	345.2	226.5	141.2	86.3	64.7	51.6	43.3	29.3	24.1	13.5
1.65V	330.0	217.5	136.3	83.5	62.7	50.2	42.2	28.9	23.8	13.3
1.70V	309.1	207.9	131.9	80.8	61.0	48.8	41.1	28.5	23.5	13.2
1.75V	287.7	198.7	127.1	77.9	59.2	47.6	40.0	28.1	23.2	13.0
1.80V	265.6	189.9	122.2	75.2	57.3	46.2	39.0	27.6	22.9	12.9
1.85V	220.4	163.5	109.6	68.9	53.0	43.0	36.4	25.9	21.5	12.2

Constant Power Discharge Characteristics : WPC (25°C)

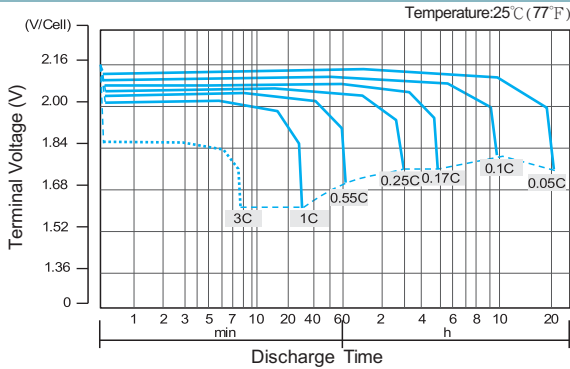
F.V/Time	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	603.5	411.4	265.3	163.5	123.5	99.1	83.5	57.2	47.4	26.6
1.65V	580.1	398.4	258.1	159.1	120.5	96.8	81.6	56.5	46.9	26.3
1.70V	556.6	385.3	250.9	154.7	117.5	94.5	79.7	55.9	46.3	26.0
1.75V	525.5	372.1	243.2	150.0	114.4	92.4	78.0	55.2	45.7	25.7
1.80V	492.1	359.2	235.2	145.3	111.3	90.1	76.3	54.4	45.2	25.5
1.85V	414.1	312.5	212.3	133.9	103.4	84.0	71.4	51.2	42.6	24.2

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

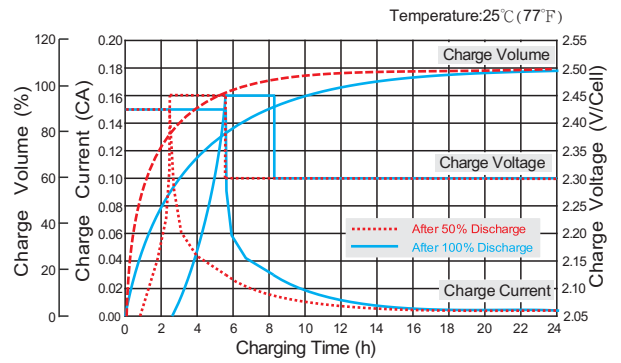
SMART

SG12-300_(12V300Ah)

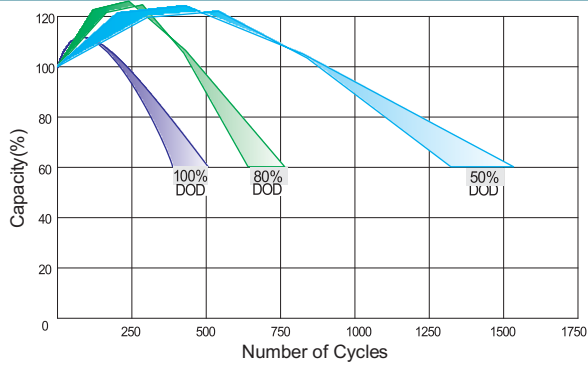
Discharge Characteristics Curve



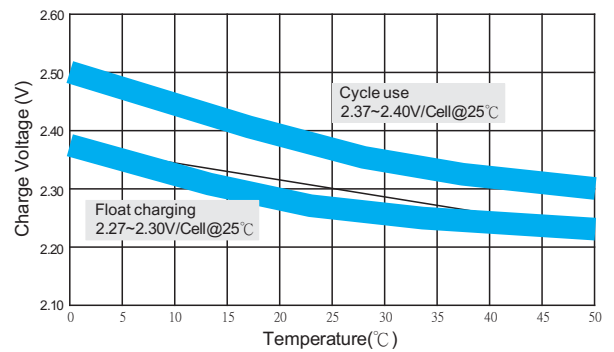
Charge Characteristic Curve for Cycle Use(IUU)



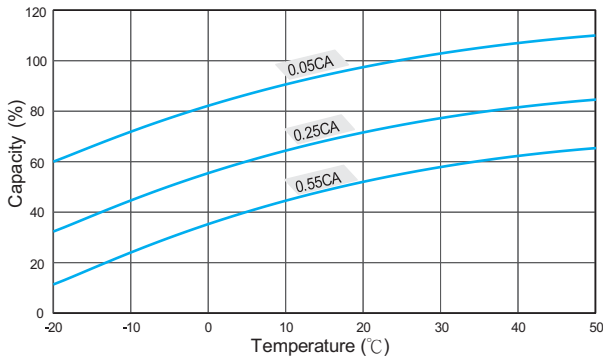
Cycle Life in Relation to Depth of Discharge



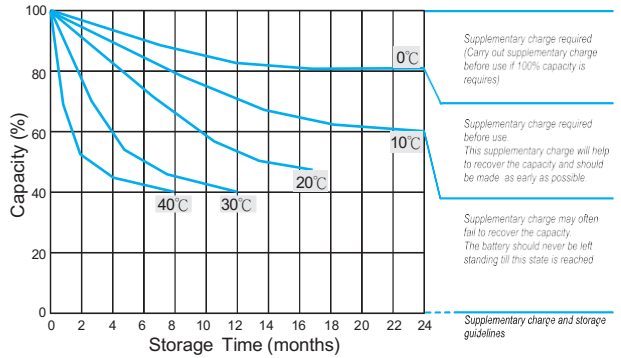
Relationship Between Charging Voltage and Temperature



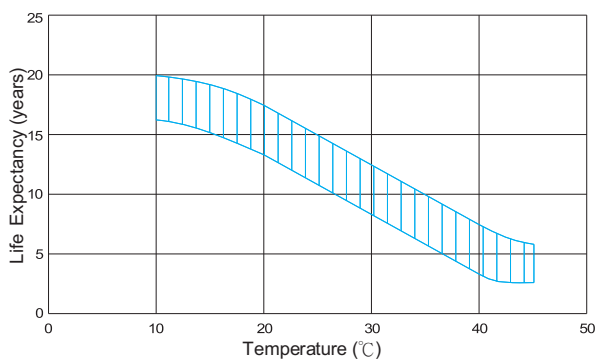
Temperature Effects on Capacity



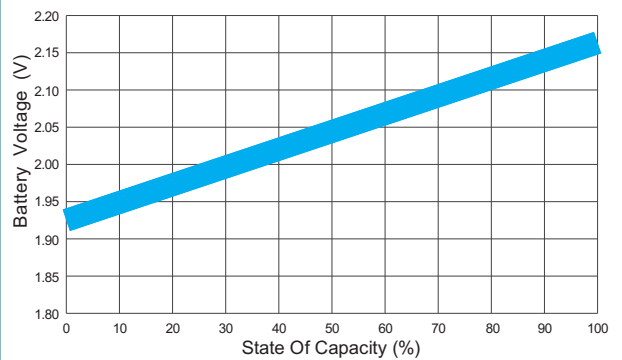
Storage Characteristics



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, we reserves the right to explain and update the latest information..