

Model: GW12-300W(12V 80Ah)

# GW Series

VLRA High Rate Discharge Battery



Legacy Canadian products designed in Canada, assembled in China.

Connecting To Legacy

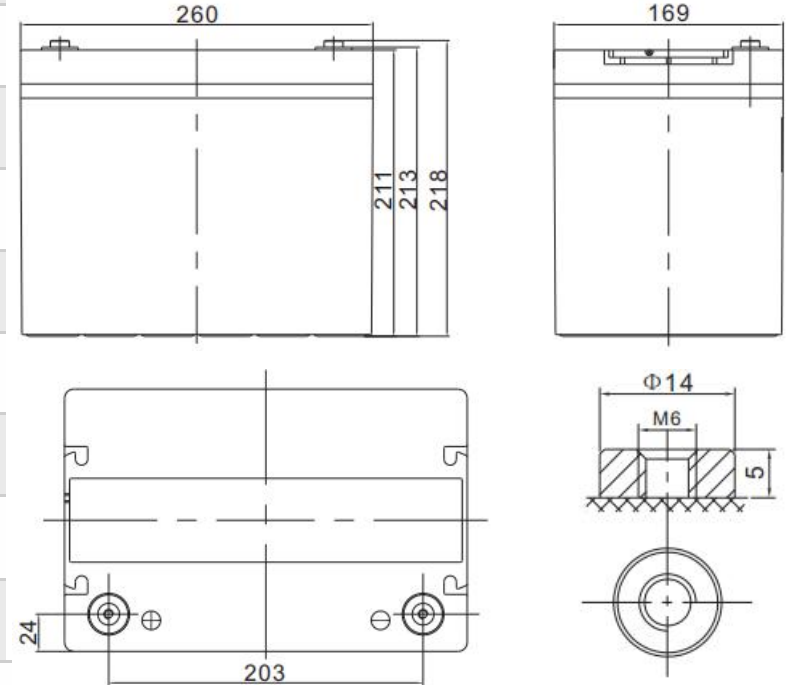
📍 Laval-Quebec-Canada

📍 Beirut-Lebanon

📍 Hongkong-China

🔍 [www.connectinglegacy.com](http://www.connectinglegacy.com)

Introduction	GW12-300W(12V 80Ah)
Length	260±2mm (10.2 inches)
Width	169±2mm (6.65 inches)
Height	211±2mm (8.31 inches)
Total Height	216±2mm (8.50 inches)
Weight	Approx. 25.5Kg (Tolerance±5%)
Terminal	Default F11(M6), Value: 8~10N*m
Container Material	A.B.S. UL94-HB, <UL94-V0 Optional>
Design Life	15 years
Application	UPS/EPS,Electric Tools,Toys,Medical,Wheelchair and Security System etc.



F11 TERMINAL

GW12-300W Dimension

Structure: Compact design of shorter internal connectors among cells for lower I.R.

Plate: Pasted flat type with patent high rate formula of AM supports stable performance during high current discharge.

Features

Separator: Improved AGM separator increases deep cycle life.

Safety Valve:Flame arrester/filter is equipped with safety valve system.


Design and manufacture with DIN standards by Legacy team, for heavy load discharge applications.

Parameters	GW12-300W(12V 80Ah)
Cell Per Unit	6
Voltage Per Unit	12V
Nominal Capacity	300W@15min-rate to 1.67V per cell @25°C
Internal Resistance	≤5.8 mΩ(Full Charge Condition @25°C)
Max. Discharge Current	800A (5 sec)
Max. Charging Current	24.0A
Short Circuit Current	1900A
Reference Capacity	C10: 75.0Ah C20: 80.0Ah
Standby Use Voltage	13.50 V~13.62 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.10 V~14.40 V @ 25°C Temperature Compensation: -4mV/°C/Cell
Normal Operating Temperature Range	25°C±5°C
Operating Temperature Range	Discharge and Storage : -20°C~60°C Charge: 0°C~50°C
Self Discharge	Monthly Self-discharge ratio is less than 3% at 25°C
Note	Legacy GW batteries can be stored for up to 6 months at 25°C and recharging is recommended. Please charged batteries before using.



GW12-300W Imagine


F.V/TIME	5 MIN	8 MIN	10 MIN	15 MIN	20 MIN	30 MIN	60 MIN	90 MIN
1.60V	269.8	228.3	208.7	165.9	135.1	99.55	57.61	41.34
1.65V	244.8	209.3	192.9	154.7	127.0	94.20	54.96	39.66
1.70V	234.4	201.2	185.9	150.0	123.4	91.93	53.86	38.89
1.75V	216.4	187.4	174.3	141.9	117.2	88.04	51.99	37.67
1.80V	198.3	173.6	162.7	134.2	111.7	84.31	50.12	36.44
1.85V	170.2	147.9	137.8	115.4	96.96	74.58	45.28	33.23



**Constant Current Discharge**  
Ah/Cell (@ 77°F/25°C)

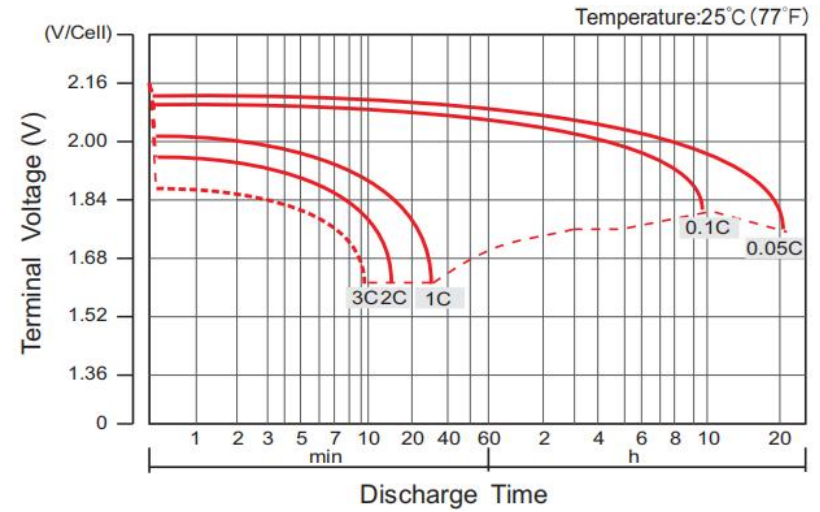
Model: GW12-300W

F.V/TIME	5 MIN	8 MIN	10 MIN	15 MIN	20 MIN	30 MIN	60 MIN	90 MIN
1.60V	495.7	425.1	392.6	316.2	259.6	193.4	108.2	78.25
1.65V	461.3	398.8	370.4	300.0	247.7	185.5	104.1	75.64
1.70V	446.2	386.9	360.1	293.0	242.4	181.8	102.4	74.57
1.75V	418.7	365.6	342.0	280.3	232.7	175.8	99.61	72.58
1.80V	389.7	343.2	323.0	267.8	223.9	169.6	96.64	70.59
1.85V	339.5	296.4	277.3	232.8	196.2	151.3	87.90	64.93

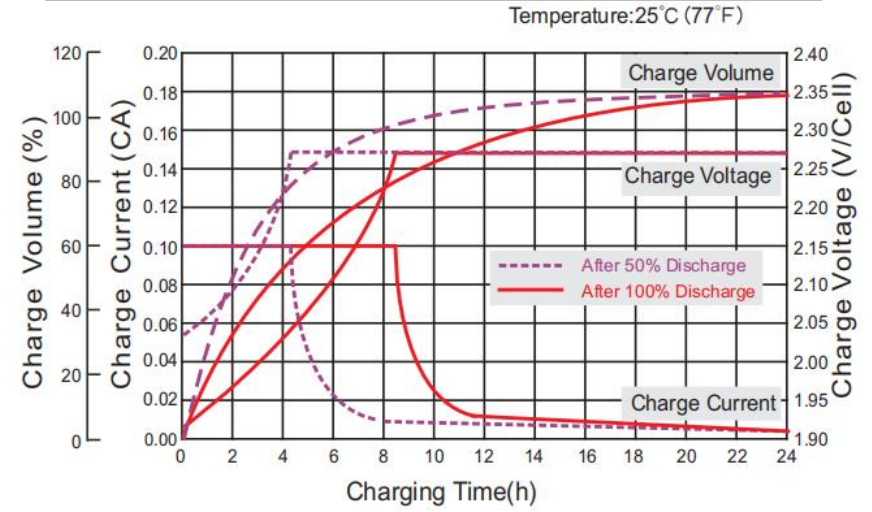


**Constant Power Discharge**  
W/Cell (@ 77°F/25°C)

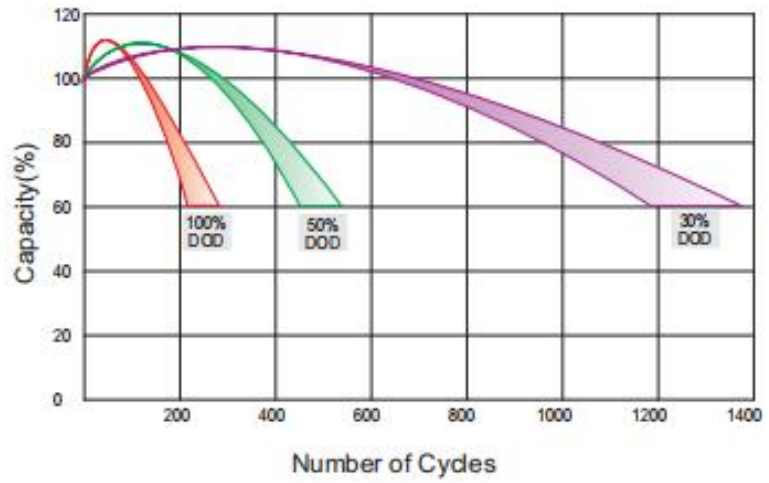
### Discharge Characteristics Curve



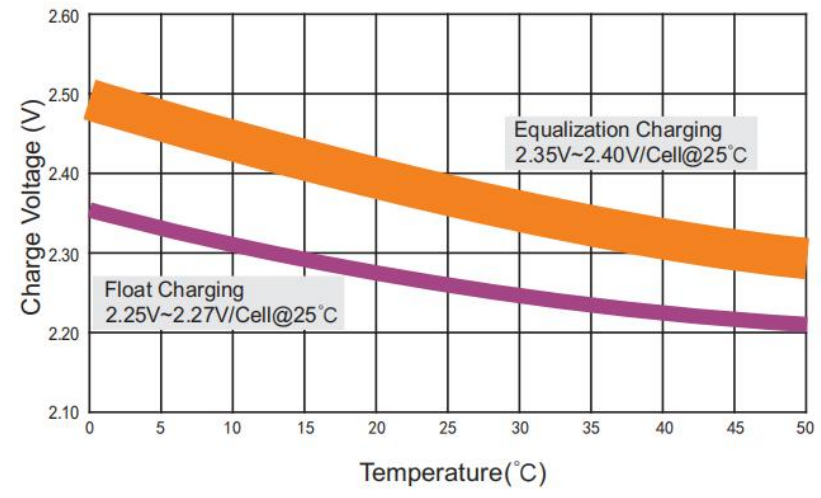
### Charge Characteristics Curve For Standby Use(IU)



### Cycle Life in Relation to Depth of Discharge

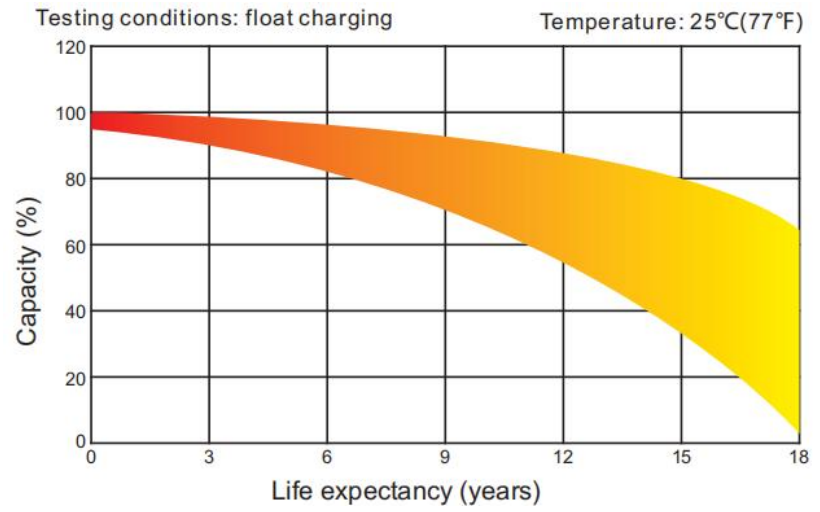


### Relationship Between Charging Voltage and Temperature

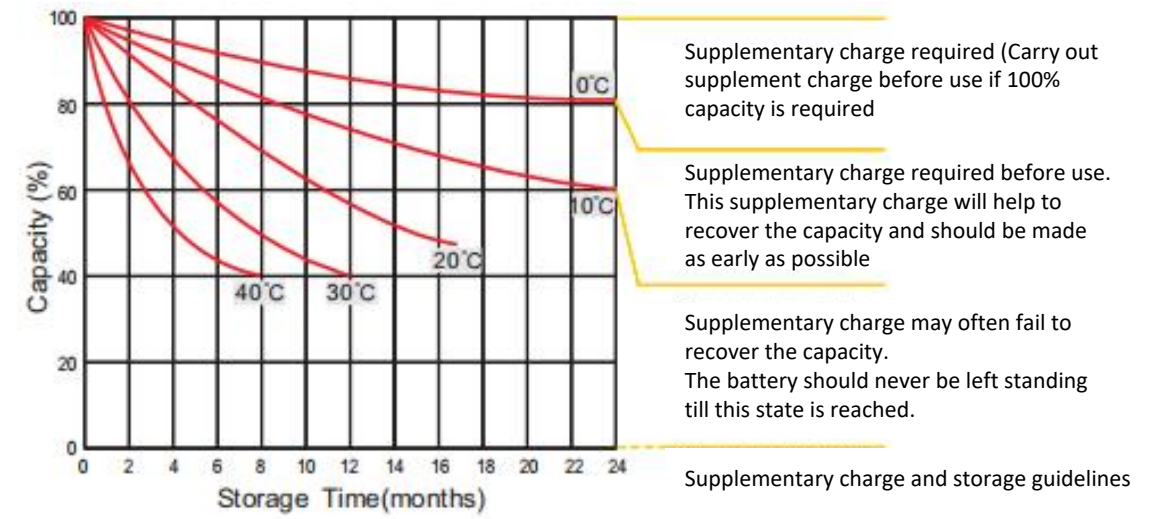


Note: The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Legacy reserves the right to explain and update the latest information.

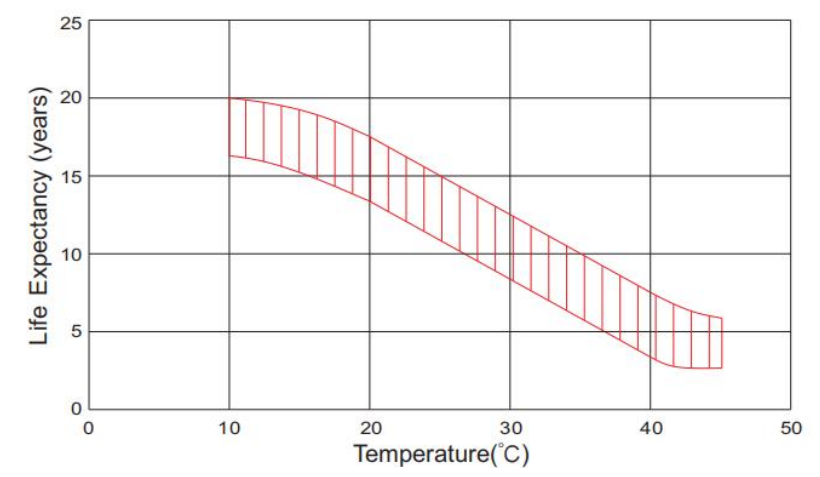
### Life Characteristics of Standby Use



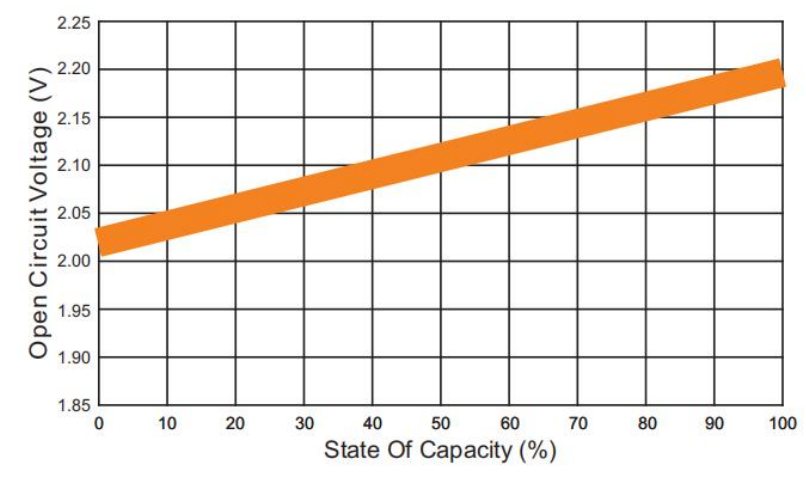
### Storage Characteristics



### Effect of Temperature on Longterm life



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



Note: The above data are average values, and can be obtained within 3 charge/ discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Legacy reserves the right to explain and update the latest information.



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