



Model: GW12-38W(12V 9Ah)

GW Series

VLRA High Rate Discharge Battery



Legacy Canadian products designed in Canada, assembled in China.

Connecting To Legacy

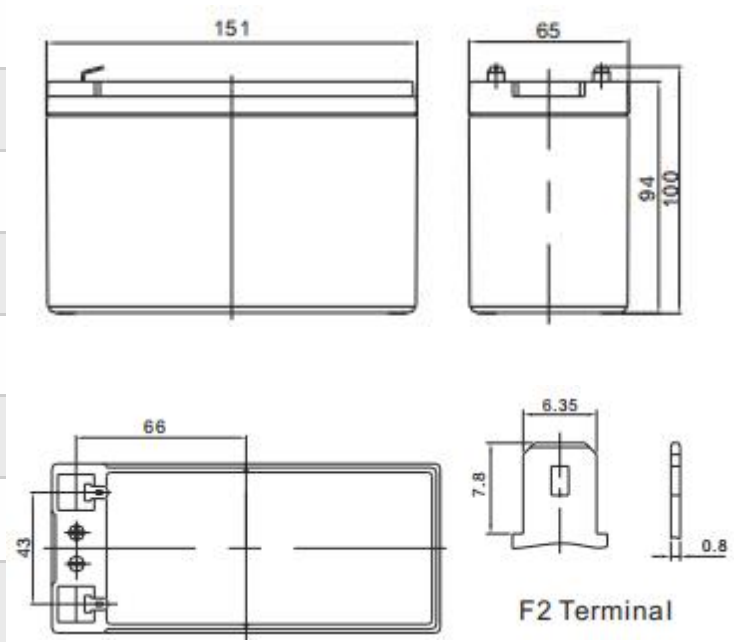
📍 Laval-Quebec-Canada

📍 Beirut-Lebanon

📍 Hongkong-China

🔍 www.connectinglegacy.com

Introduction	GW12-38W(12V 9Ah)
Length	151±1mm (5.94 inches)
Width	65±1mm (2.56 inches)
Height	94±1mm (3.70 inches)
Total Height	100±1mm (3.94 inches)
Weight	Approx. 2.70Kg (Tolerance±5%)
Terminal	Default F2
Container Material	A.B.S. UL94-HB, <UL94-V0 Optional>
Design Life	8 years
Application	UPS/EPS,Electric Tools,Toys,Medical,Wheelchair and Security System etc.



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.

GW12-38W Dimension

Parameters	GW12-38W(12V 9Ah)
Cell Per Unit	6
Voltage Per Unit	12V
Nominal Capacity	38W@15min-rate to 1.67V per cell @25°C
Internal Resistance	≤18.0 mΩ(Full Charge Condition @25°C)
Max. Discharge Current	90A (5 sec)
Max. Charging Current	2.7A
Short Circuit Current	450A
Reference Capacity	C10: 8.5Ah C20: 9.0Ah
Standby Use Voltage	13.70 V~13.90 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.60 V~14.80 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.



GW12-38W Imagine

F.V/TIME	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	61.16	43.82	31.19	26.16	18.63	14.82	9.991	5.616	4.019
1.65V	57.51	41.88	30.46	25.68	17.85	14.66	9.840	5.548	3.936
1.70V	55.32	40.82	30.05	25.35	18.39	14.58	9.764	5.480	3.913
1.75V	50.71	38.23	28.84	24.38	17.90	14.18	9.613	5.382	3.807
1.80V	46.01	34.99	26.89	23.00	17.09	13.69	9.386	5.238	3.716
1.85V	40.26	31.83	24.54	21.14	15.88	12.80	8.856	5.003	3.557



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

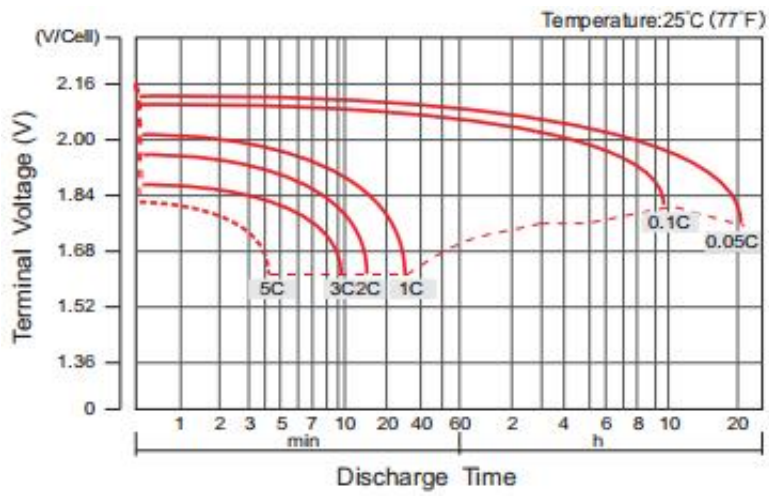
Model: GW12-38W

F.V/TIME	3MIN	5MIN	8MIN	10MIN	15MIN	20MIN	30MIN	60MIN	90MIN
1.60V	104.5	78.30	57.65	48.74	36.02	28.08	18.92	10.62	7.48
1.65V	101.0	76.28	56.70	48.06	38.00	27.81	18.80	10.60	7.43
1.70V	98.55	75.06	55.89	47.66	35.60	27.81	18.80	10.55	7.42
1.75V	92.88	72.63	54.27	46.31	35.05	27.41	18.67	10.48	7.37
1.80V	86.40	68.18	51.71	44.42	33.81	26.60	18.29	10.31	7.27
1.85V	79.11	62.51	47.52	41.18	31.60	25.11	17.41	9.95	7.01

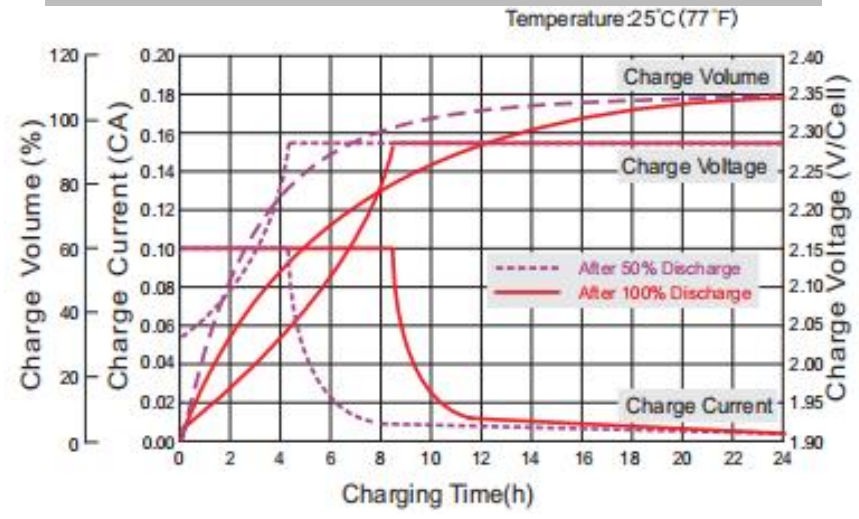


Constant Power Discharge
W/Cell (@ 77°F/25°C)

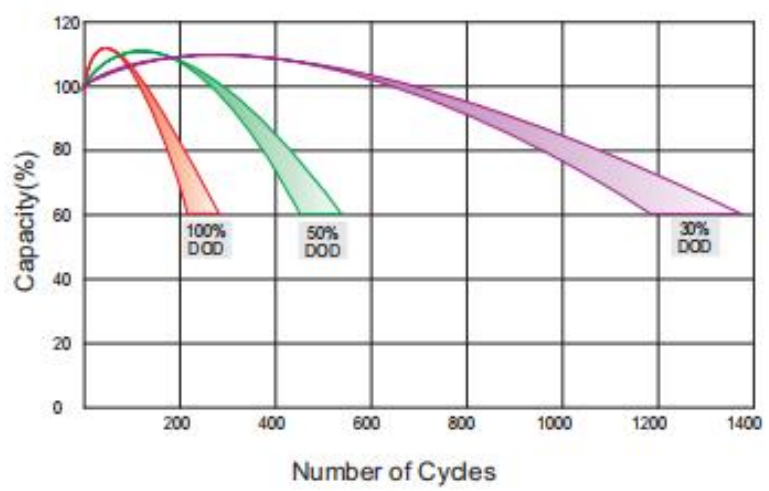
Discharge Characteristics Curve



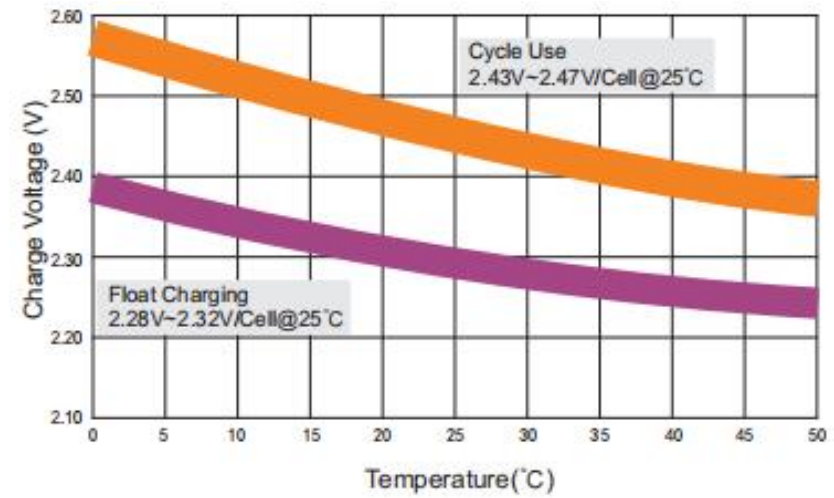
Charge Characteristics Curve For Standby Use(IU)



Cycle Life in Relation to Depth of Discharge

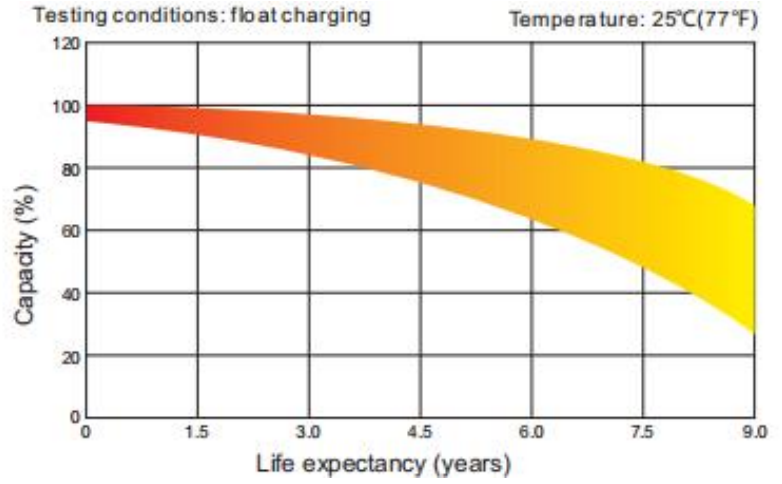


Relationship Between Charging Voltage and Temperature

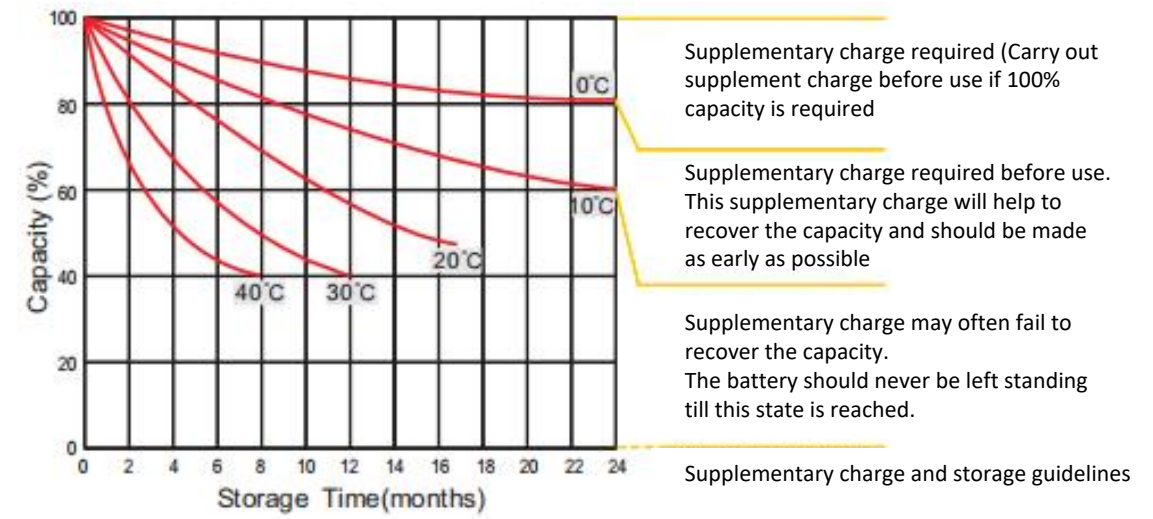


Note: The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Legacy reserves the right to explain and update the latest information.

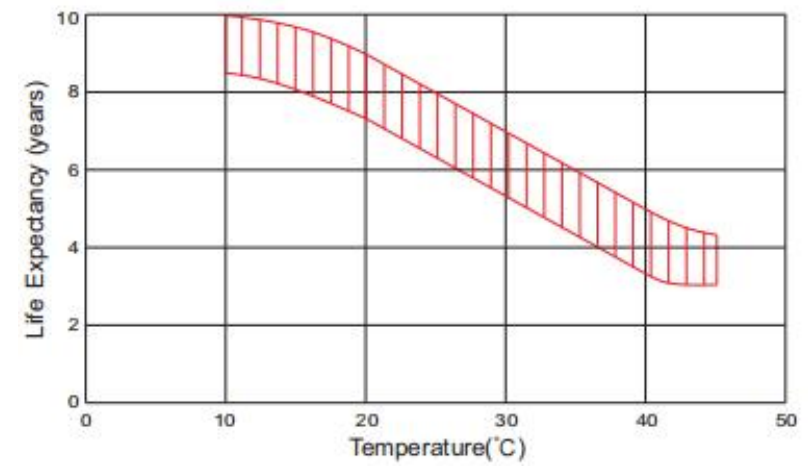
Life Characteristics of Standby Use



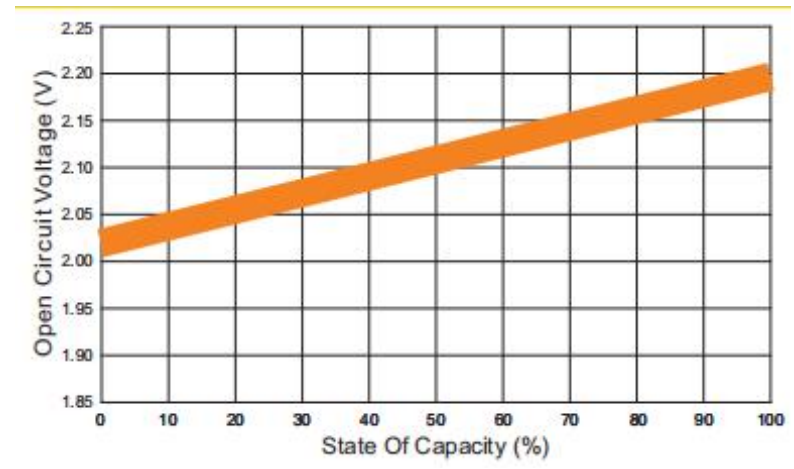
Storage Characteristics



Effect of Temperature on Longterm life



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



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