



## DATASHEET

# GHL 140-12

12V 140AH

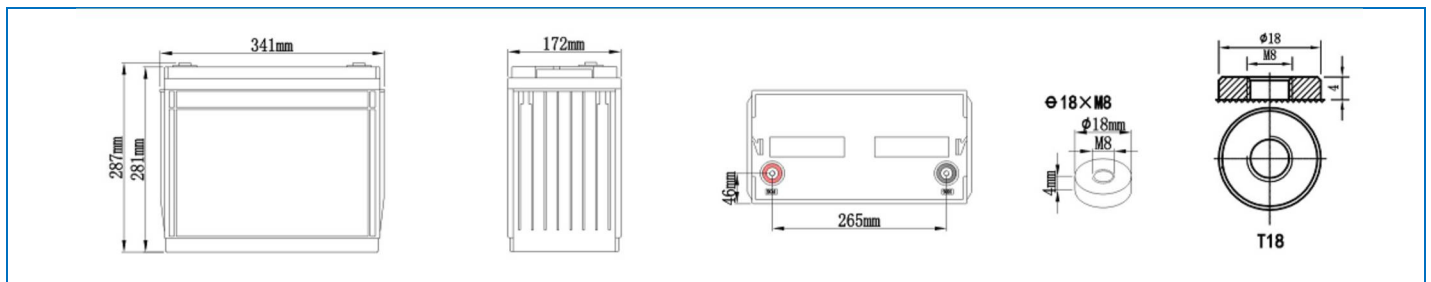
GEL SEALED VRLA BATTERY

EUROBAT 2022 CLASSIFICATION: 12 Years – Long Life

Designed in accordance with IEC 60896-21/22

### SPECIFICATIONS

Nominal Voltage	Nominal Capacity	Dimension ±3mm				Weight ±2%	Max Discharge Current (5s)	Internal Resistance	Standard Terminal	Container Material
		L	W	H	TH					
12V	140AH	341mm	172mm	281mm	287mm	43kg	1.350A	≈4.6 mΩ	M8	ABS UL94-V0



### CONSTANT-VOLTAGE CHARGE

Rated Capacity	
20 hour rate (6.75A)	141.8AH
10 hour rate (13.5A)	135.0AH
5 hour rate (23.0A)	115.0AH
3 hour rate (33.8A)	101.4AH
1 hour rate (81.0A)	84.9AH
Capacity affected by temperature	
40°C (104°F)	103%
25°C (77°C)	100%
0°C (32°F)	86%

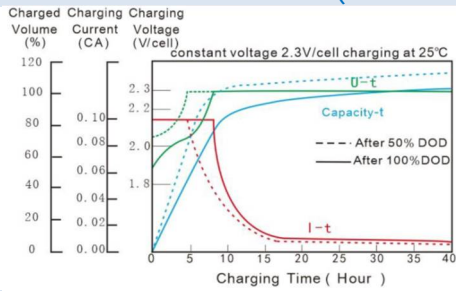
Cycle Application
1. Limit initial current less than 27.0A.
2. Charge until battery voltage (under charge) reaches 14.1V to 14.4V at 25°C(77°F).
3. Hold at 14.1V to 14.4V until current drop to under 0.81A for at least 3 hours.
4. Temperature compensation coefficient of charging voltage is -30mV/°C.
Standby Service
1. Hold battery across constant voltage source of 13.6 to 13.8 volts with current limit 27.0A continuously. When held at this voltage, the battery will seek its own current level and maintain itself in a fully charge status.
2. Temperature compensation coefficient of charging voltage is -18mV/°C.

Nominal Operating Temp. Range
25±3°C (77±5°F)

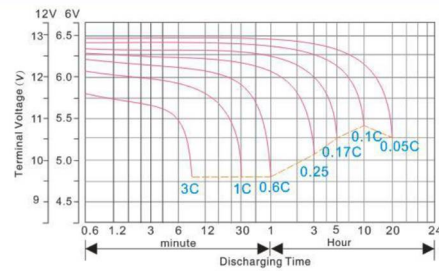
Operating Temperature
Wide operating temperature range from -20°C~55°C

NOTE : The battery should be charged within 6 months of storage, Otherwise, permanent loss of capacity might occur as a result of sulfation

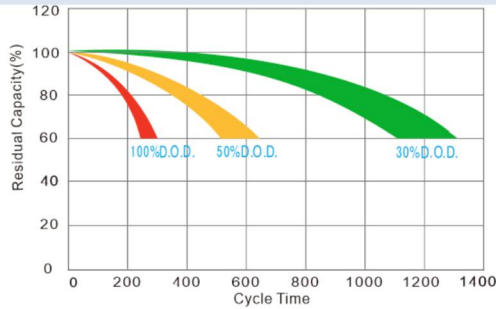
## CHARGE CHARACTERISTICS (25°C/77°F)



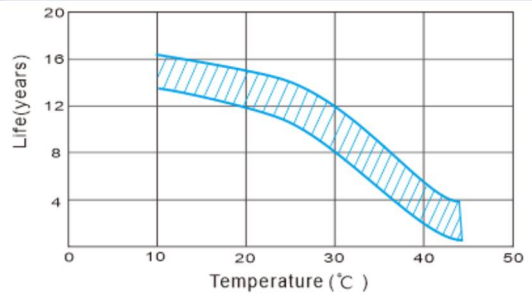
## DISCHARGE CHARACTERISTIC (25°C/77°F)



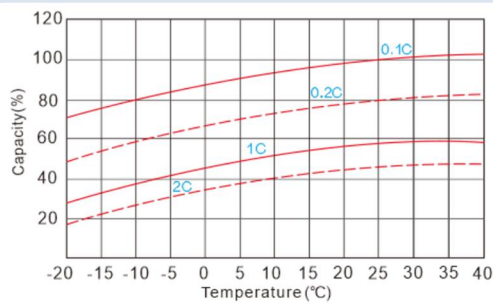
## CYCLE LIFE IN RELATION TO DEPTH OF DISCHARGE



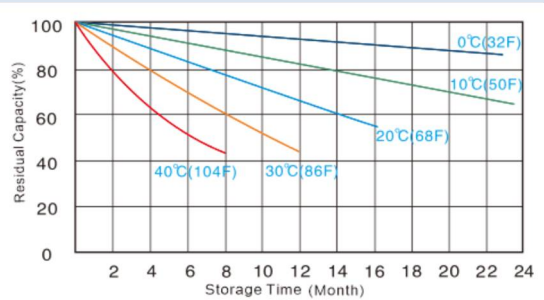
## TEMPERATURE VS FLOAT LIFE



## CAPACITY CURVE AT DIFFERENT TEMPERATURE



## SELF DISCHARGE CHARACTERISTICS



## Constant Current Discharge (Amperes) at 25°C (77°F)

End Voltage (V)	10 min	15 min	30 min	45 min	1 h	1,5 h	2 h	3 h	5 h	8 h	10 h	20 h
9.6V	328	259	146	125	84.9	67.5	56.9	35.1	24.4	16.8	14.1	7.30
9.9V	313	247	139	122	83.9	66.5	55.9	34.5	23.9	16.5	13.9	7.23
10.2V	298	235	132	118	81.0	64.6	54.0	33.8	23.3	16.2	13.8	7.16
10.5V	284	224	125	114	80.0	63.6	53.0	33.2	23.0	15.8	13.6	7.09
10.8V	270	213	121	109	78.1	61.7	52.1	32.4	22.3	15.5	13.5	7.02

## Constant Power Discharge (Watts) at 25°C (77°F)

End Voltage (V)	10 min	15 min	30 min	45 min	1 h	1,5 h	2 h	3 h	5 h	8 h	10 h	20 h
9.6V	3664	3037	1879	1316	1094	799	598	446	287	218	169	90.6
9.9V	3490	2892	1789	1272	1069	779	583	435	281	213	167	89.7
10.2V	3324	2754	1704	1229	1042	760	568	424	274	209	165	88.7
10.5V	3166	2623	1623	1188	1016	742	554	413	267	205	164	87.8
10.8V	3014	2498	1546	1148	992	723	541	404	260	202	162	86.8