



DATASHEET

GHL 40-12

12V 45AH

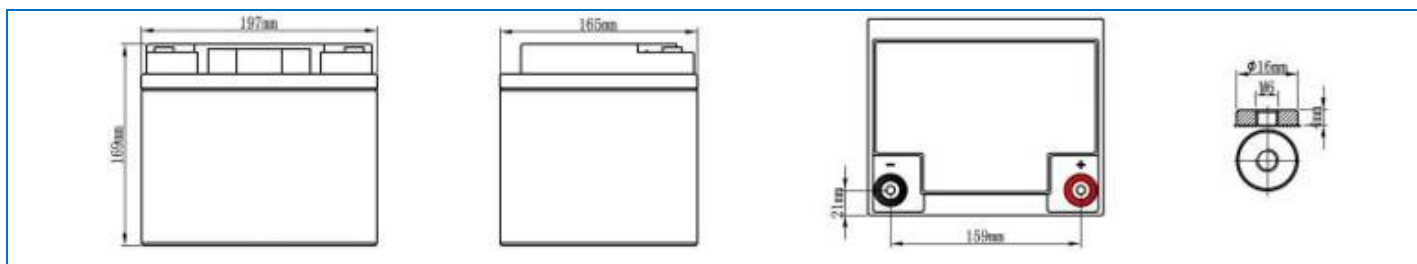
GEL SEALED VRLA BATTERY

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	45AH	197mm	165mm	169mm	169mm	13,3kg	-	≈8.3 mΩ	M6	ABS UL94-V0



CONSTANT-VOLTAGE CHARGE

Rated Capacity	
20 hour rate (2.25A)	46.6AH
10 hour rate (4.5A)	45.0AH
5 hour rate (7.65A)	38.3AH
3 hour rate (11.25A)	33.9AH
1 hour rate (24.75A)	24.9AH
Capacity affected by temperature	
40°C (104°F)	103%
25°C (77°F)	100%
0°C (32°F)	86%

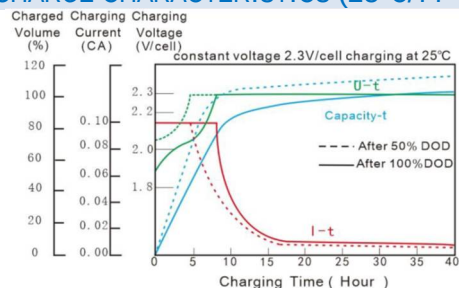
Nominal Operating Temp. Range
25±3°C (77±5°F)

Cycle Application
1. Limit initial current less than 9A.
2. Charge until battery voltage (under charge) reaches 14.5V to 14.9V at 25°C(77°F).
3. Hold at 14.5V to 14.9V until current drop to under 0.27A 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 9A 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.

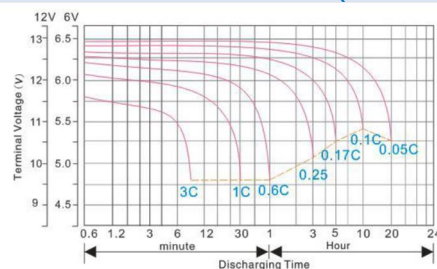
Operating Temperature
Wide operating temperature range from -20°C~55°C

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

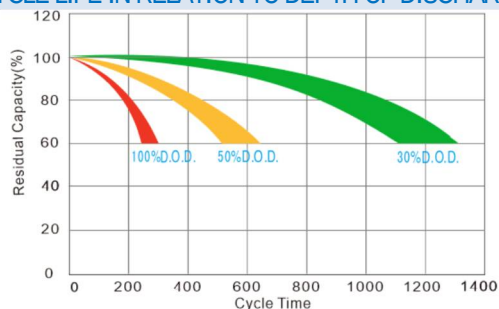
CHARGE CHARACTERISTICS (25°C/77°F)



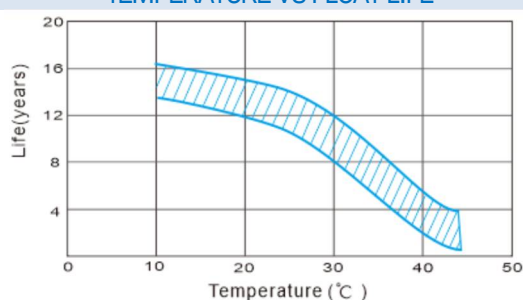
DISCHARGE CHARACTERISTIC (25°C/77°F)



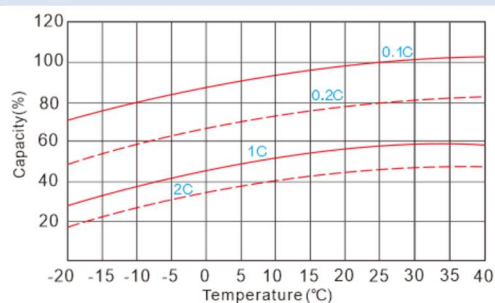
CYCLE LIFE IN RELATION TO DEPTH OF DISCHARGE



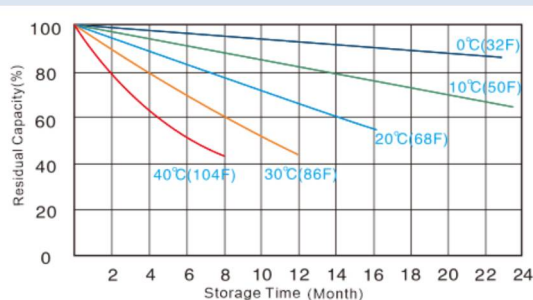
TEMPERATURE VS FLOAT LIFE



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	94	74	41.0	29.1	24.9	20.9	15.4	11.6	7.90	5.23	4.59	2.37
9.9V	90	72	39.3	28.4	24.4	20.4	14.9	11.4	7.83	5.20	4.58	2.36
10.2V	87	69	38.0	27.5	24.0	19.9	14.5	11.3	7.76	5.15	4.56	2.35
10.5V	82	65	36.4	26.3	23.3	19.0	13.6	10.9	7.65	5.09	4.53	2.33
10.8V	78	62	34.8	25.0	22.6	18.3	12.9	10.6	7.46	5.03	4.50	2.31

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	968	829	484	355	271	222	159	127	89	57.5	50.9	26.3
9.9V	944	809	481	350	269	219	157	126	86	57.1	50.4	26.0
10.2V	931	795	476	347	266	215	152	121	85	56.5	50.3	25.8
10.5V	898	768	466	336	259	209	148	118	84	55.8	49.6	25.3
10.8V	867	742	453	329	249	202	143	116	82	54.8	48.7	24.9



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