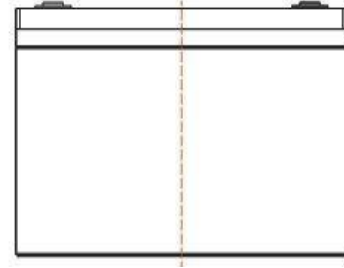


GHL Series GEL Battery

GHL Series – Storage – type Gelled Battery

- Completely sealed and maintenance-free, low self-discharge
- 100% precise quality testing, stable quality and high reliable performance
- Unique grid alloy formula, Gelled electrolyte formula and updated manufacturing technique
- Floating & standby use : up to 12 years
- Cycle use 1 : More than 350 cycles at 100% DOD
- Cycle use 2 : More than 750 cycles at 50% DOD
- Cycle use 3 : More than 1.800 cycles at 30% DOD



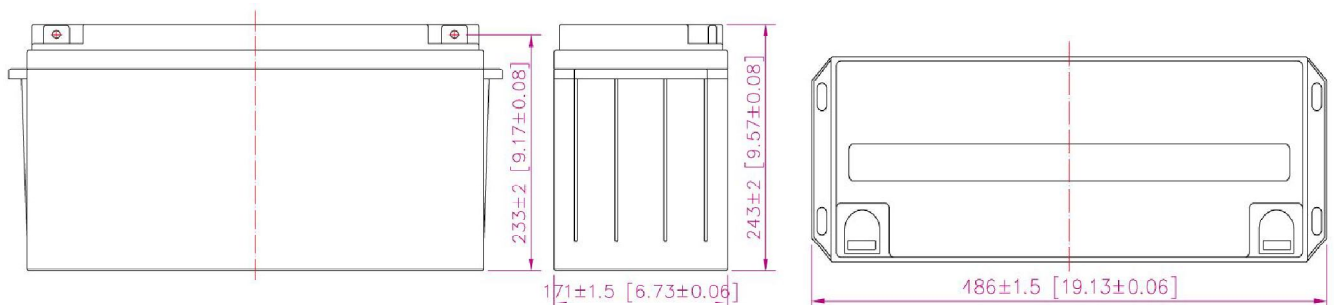
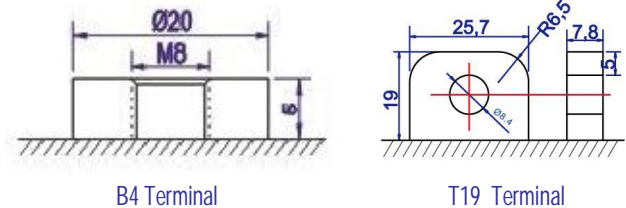
Application :

- Telecommunications
- UPS / EPS
- DC Power Supply
- Solar system
- Wind Power System
- Auto Control System



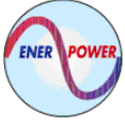
Construction :

- ComponentRaw material
- PositiveLead dioxide
- NegativeLead
- Container ABS "UL 94 V0"
- Cover ABS "UL 94 V0"
- SealantEpoxy
- Safety valveRubber
- TerminalCopper/Pb
- SeparatorFiber glass
- ElectrolyteGelled acid



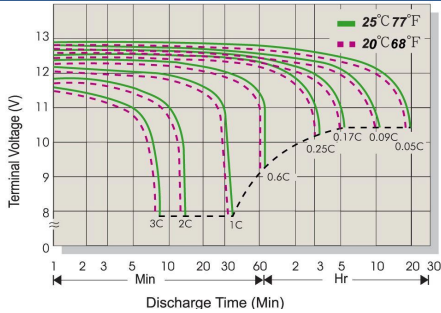
Construction :

Battery Model	GHL 150-12A 12 V 150 Ah			
Designed Floating Life	Up to 12 Years			
Capacity (25°C)	20 hr (7,8A 10,8V)	10 hr (15A 10,8V)	5 hr (24,69A 10,5V)	3 hr (36,3A 10,5V)
	156 Ah	150 Ah	123,45 Ah	108,9 Ah
Dimensions	Length	Width	Height	Total Height
	486 mm	171 mm	233 mm	243 mm
Approx. Weight	47,0 kg			
Internal Resistance	Full charged at 25°C : ≤ 5,3 mΩ			
Self Discharge	2% of capacity declined per month at 25°C			
Capacity Affected by Temp. (20 hr)	40°C	25°C	0°C	-15°C
	102%	100%	85%	65%
Charge Voltage (25°C)	Cycle Use		Float Use	
	14,4-14,6V(-30mV/°C) max current 30A		13,5-13,8 (-20mV/°C)	

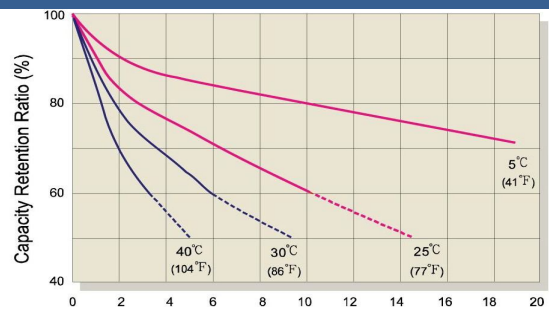


GHL Series GEL Battery

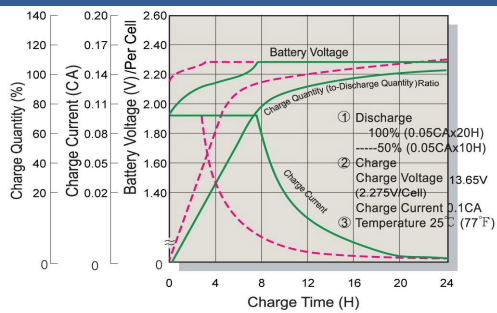
Terminal Voltage(V) and Discharge Time



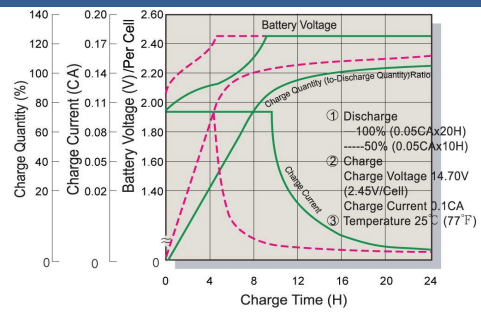
Capacity Retention Characteristic



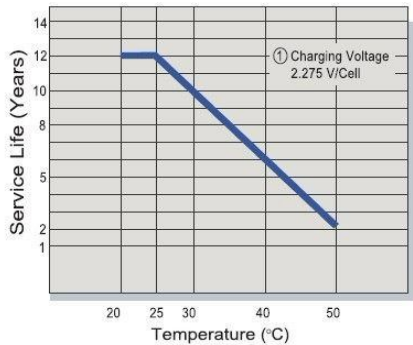
Battery Voltage and Charge Time for Standby Use



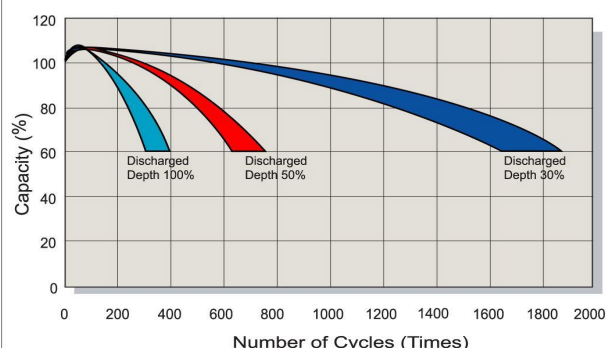
Battery Voltage and Charge Time for Cycle Use



Tickle (or Float) Service Life



Cycle Service Life



Constant Current Discharge (CC, Unit : A) at 25°C

F.V/Time	5 min	10 min	15 min	30 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1,85V/Cell	339,0	249,7	216,7	130,8	77,0	45,40	33,80	28,51	23,47	21,60	17,28	14,40	7,51
1,80V/Cell	351,9	259,2	225,0	135,8	80,3	47,30	35,30	29,70	24,45	22,50	18,00	15,00	7,80
1,75V/Cell	387,1	272,2	236,3	141,2	83,5	48,70	36,30	30,00	24,69	22,73	18,18	15,15	7,87
1,70V/Cell	432,8	285,1	247,5	148,0	85,1	49,60	37,00	30,29	24,94	22,95	18,36	15,30	7,96
1,67V/Cell	478,6	298,1	258,8	152,0	88,3	51,00	38,10	30,59	25,18	23,18	18,54	15,45	8,03
1,60V/Cell	518,5	313,6	272,3	158,5	89,2	51,54	38,53	30,93	25,47	23,44	18,75	15,61	8,14

Constant Power Discharge (CP, Unit : W) at 25°C

F.V/Time	5 min	10 min	15 min	30 min	1 hr	2 hr	3 hr	4 hr	5 hr	6 hr	8 hr	10 hr	20 hr
1,85V/Cell	644,0	474,4	411,8	248,4	146,4	86,2	64,30	54,17	44,60	41,04	32,01	27,36	13,68
1,80V/Cell	668,6	492,5	427,5	257,9	152,5	89,8	67,00	56,43	46,46	42,75	33,35	28,50	14,25
1,75V/Cell	735,5	517,1	448,9	268,2	158,6	92,5	69,00	59,99	46,92	43,18	33,68	28,79	14,39
1,70V/Cell	822,4	541,7	470,3	281,1	161,6	94,3	70,30	57,56	47,38	43,61	34,02	29,07	14,54
1,67V/Cell	909,3	566,4	491,9	288,9	167,7	97,0	72,30	58,12	47,85	44,03	34,34	29,36	14,68
1,60V/Cell	985,1	596,0	517,6	301,3	169,5	98,0	73,1	58,7	48,4	44,5	34,7	29,7	14,8