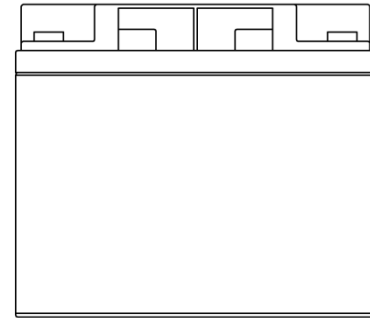


## GHL Series GEL Battery

### 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 1800 cycles at 30% DOD



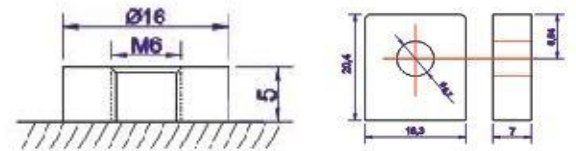
### Application :

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



### Construction :

- Component ....Raw material
- Positive ....Lead dioxide
- Negative ....Lead
- Container .... ABS "UL 94 V0"
- Cover .... ABS "UL 94 V0"
- Sealant ....Epoxy
- Safety valve ....Rubber
- Terminal ....Copper/Pb
- Separator ....Fiber glass
- Electrolyte ....Gelled acid

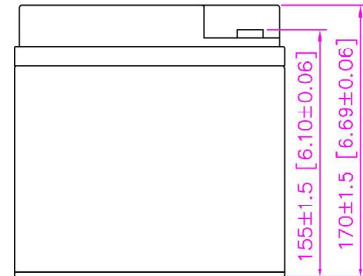
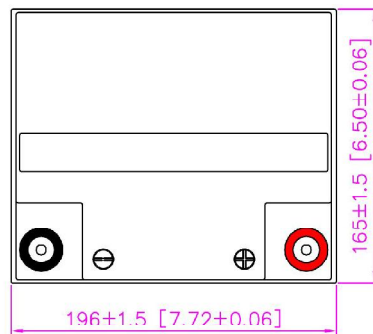
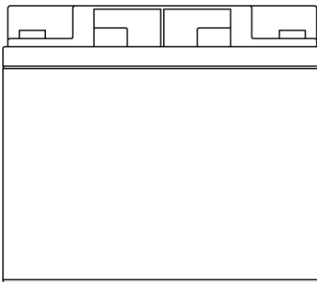


M6 Bolt

M6 Bolt &amp; Nut

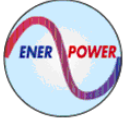
B4 Terminal

T11 Terminal



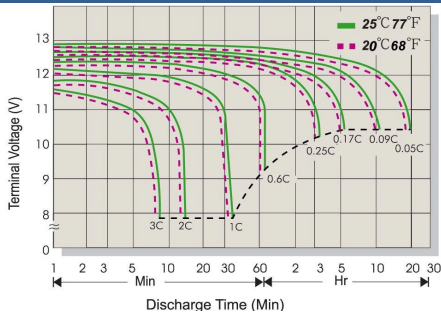
### Construction :

Battery Model	GHL 40-12A 12 V 40 Ah			
Designed Floating Life	Up to 12 Years			
Capacity (25°C)	20 hr (2.08A 10,8V)	10 hr (4.0A 10,8V)	5 hr (6.65A 10,5V)	3 hr (9,77A 10,5V)
	41.6 Ah	40 Ah	33.25 Ah	29.31 Ah
Dimensions	Length	Width	Height	Total Height
	196 mm	165 mm	155 mm	170 mm
Approx. Weight	13.30 kg			
Internal Resistance	Full charged at 25°C : ≤ 10 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 8A		13,6-13,8 (-20mV/°C)	

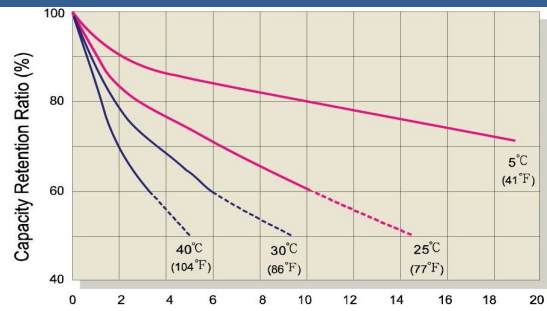


# GHL Series GEL Battery

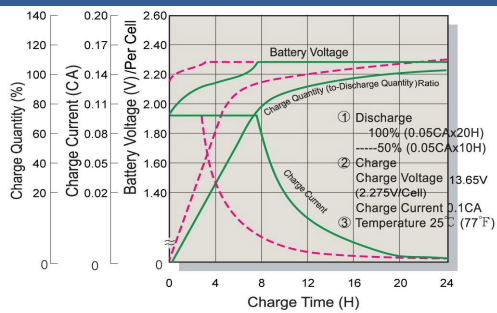
Terminal Voltage(V) and Discharge Time



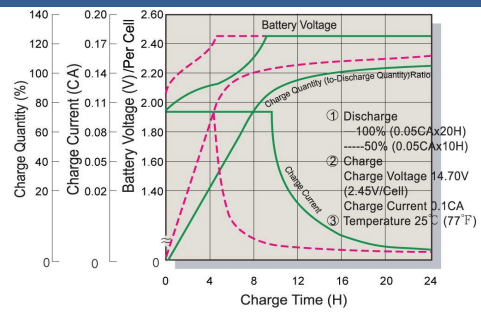
Capacity Retention Characteristic



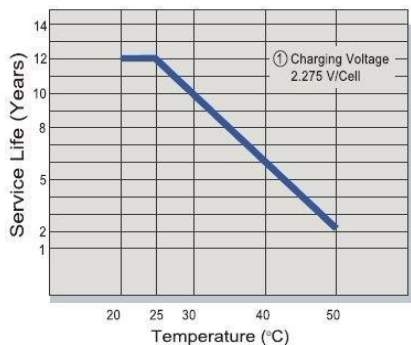
Battery Voltage and Charge Time for Standby Use



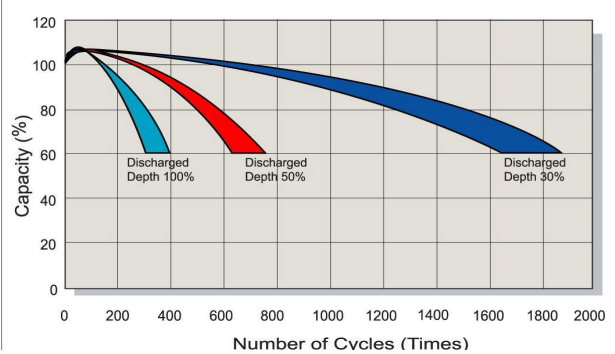
Battery Voltage and Charge Time for Cycle Use



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	91,2	67,2	58,3	35,2	20,7	12,22	9,10	7,67	6,32	5,81	4,65	3,84	2,00
1,80V/Cell	94,7	69,8	60,6	36,6	21,6	12,73	9,50	7,99	6,58	6,06	4,85	4,00	2,08
1,75V/Cell	104,2	73,3	63,6	38,0	22,5	13,11	9,77	8,07	6,65	6,12	4,90	4,04	2,10
1,70V/Cell	116,5	76,7	66,6	39,8	22,9	13,35	9,96	8,15	6,71	6,19	4,95	4,09	2,13
1,67V/Cell	128,8	80,2	69,7	40,9	23,8	13,73	10,25	8,23	6,78	6,23	4,98	4,14	2,15
1,60V/Cell	139,5	84,4	73,3	42,6	24,1	13,87	10,37	8,32	6,86	6,30	5,04	4,18	2,18

## 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	173,4	127,7	110,8	66,9	39,4	23,20	17,28	14,58	12,00	11,05	8,90	7,30	3,68
1,80V/Cell	179,9	132,6	115,1	69,5	41,1	24,20	18,05	15,19	12,50	11,51	9,27	7,60	3,84
1,75V/Cell	198,0	139,2	120,8	72,2	42,7	24,90	18,56	15,34	12,63	11,62	9,35	7,68	3,88
1,70V/Cell	221,3	145,8	126,6	75,7	43,5	25,40	18,92	15,49	12,75	11,74	9,45	7,75	3,91
1,67V/Cell	244,8	152,4	132,3	77,7	45,2	26,10	19,48	15,65	12,88	11,85	9,54	7,83	3,95
1,60V/Cell	265,2	160,4	139,2	81,0	45,7	26,38	19,69	15,82	13,02	11,97	9,64	7,91	3,99