



# GEL Battery

UPG No. D5873

# UB27

Maintenance-Free

Celled Silica technology for superior performance. Valve regulated, spill proof construction performance. Valve regulated, spill proof construction allows safe operation in any position. Approved for transport by air. D.O.T., I.A.T.A., F.A.A. and C.A.B. certified. U.L. recognized under file number MH 20567.

## Specification

<b>Nominal Voltage</b>	12 volts		
<b>Nominal Capacity</b>	77° F (25° C)		
20-hr. (4.50A)	90.0 Ah		
10-hr. (8.37A)	83.7 Ah		
5-hr. (15.30A)	76.5 Ah		
1-hr. (54.00A)	54.0 Ah		
<b>Approximate Weight</b>	58.4 lbs (26.5 kgs)		
<b>Internal Resistance (approx.)</b>	10mΩ		
<b>Shelf Life</b> (% of normal capacity at 77° F (25° C))			
3 Months	6 Months	12 Months	
91%	82%	64%	
<b>Temperature Dependency of Capacity</b>	(20 hour rate)		
104° F	77° F	32° F	5° F
102%	100%	85%	65%



## Charge Method (Constant Voltage)

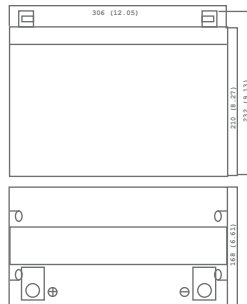
## Cycle Use (Repeating Use)

Initial Current	18.0 A or smaller
Control Voltage	14.2 - 14.4 V

## Float Use

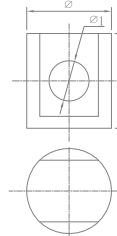
Control Voltage	13.2 - 13.4 V
-----------------	---------------

## Physical Dimensions: in (mm)



**L:** 12.05 in (306.1 mm)  
**W:** 6.61 in (167.9 mm)  
**H:** 8.27 in (210.1 mm)  
**TH:** 9.13 in (231.9 mm)  
 Tolerances are +/- 0.04 in. (+/- 1mm) and +/- 0.08 in. (+/- 2mm) for height dimensions. All data subject to change without notice.

## Terminals



## Z Series (Z Post Terminal) Offset Z

Dimension Type	∅	∅1	H	h
Z1	17.0	8.0	21.5	9.0

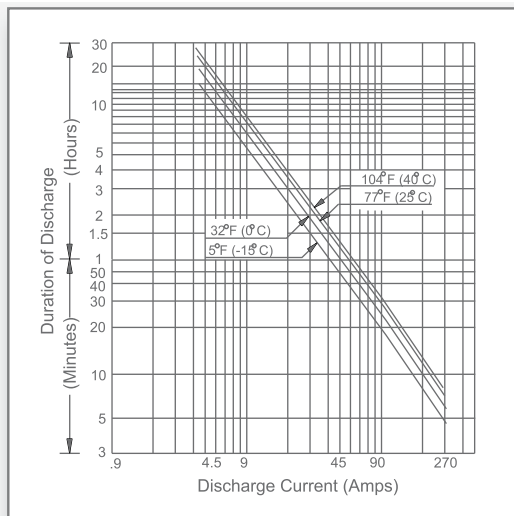
## Constant Power Discharge Characteristics Unit:A (25°C, 77°F)

F.V/Time	5MIN	10MIN	15MIN	20MIN	30MIN	40MIN	50MIN	60MIN	90MIN
1.75V	477	352	282	237	182	151	128	111	80
1.70V	520	370	293	244	185	153	130	112	81
1.65V	543	388	305	250	190	156	132	114	82
1.60V	563	395	310	254	193	157	133	115	83

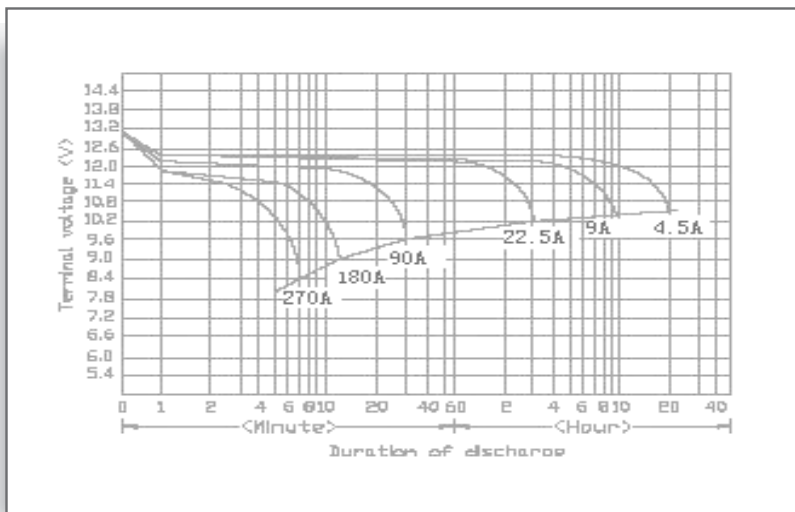
## Constant Current Discharge Characteristics Unit:W (25°C, 77°F)

F.V/Time	5MIN	10MIN	30MIN	60MIN	2HR	3HR	4HR	5HR	6HR	7HR	8HR	10HR	20HR	24HR
1.90V	149	104	70.3	41.2	26.6	19.3	15.4	13.0	11.1	9.7	8.7	7.3	4.0	3.3
1.85V	190	125	82.0	47.8	29.3	21.3	16.8	14.2	12.0	10.6	9.4	7.8	4.2	3.5
1.80V	228	138	89.7	51.2	30.9	22.7	17.9	15.0	12.7	11.2	9.9	8.2	4.4	3.7
1.75V	259	150	95	54.0	32.0	23.3	18.4	15.4	13.1	11.5	10.2	8.3	4.5	3.7

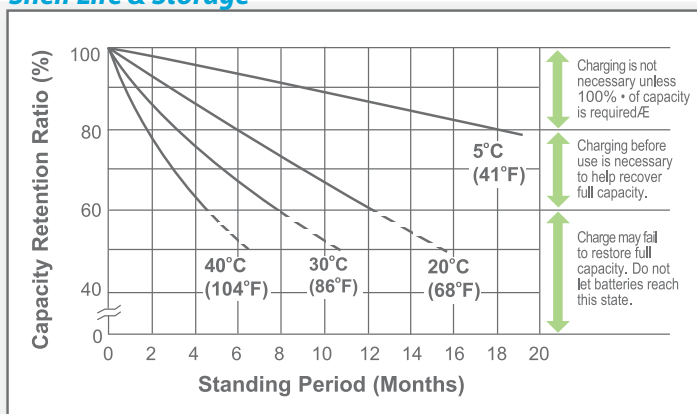
### Discharge Time vs. Discharge Current



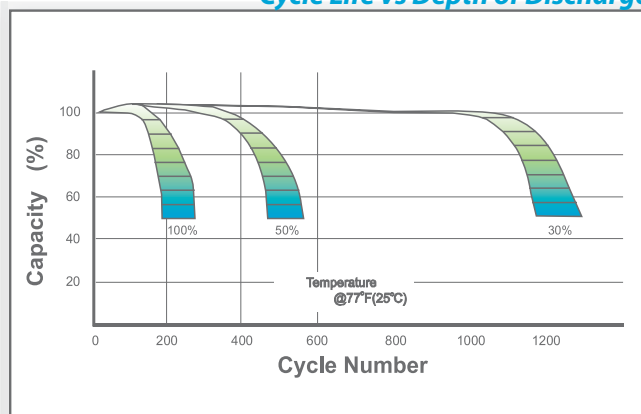
### Discharge Characteristics



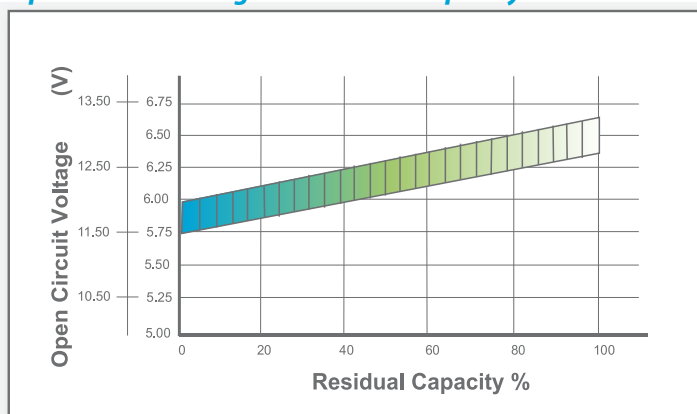
### Shelf Life & Storage



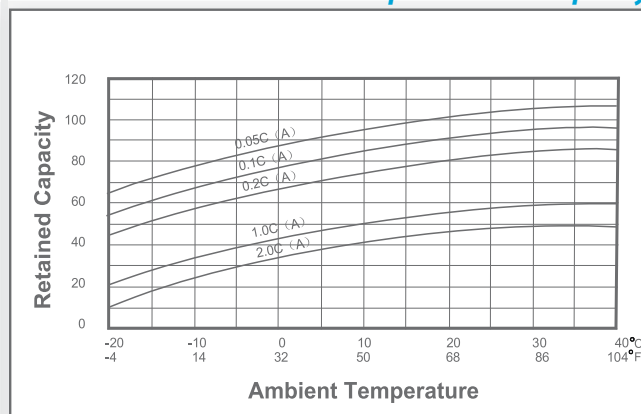
### Cycle Life vs. Depth of Discharge



### Open Circuit Voltage vs. Residual Capacity



### Effect of Temperature on Capacity



### Charge Current & Final Discharge Voltage

Application	Charge Voltage(V/Cell)			Max.Charge Current	Final Discharge Voltage V/Cell	Discharge Current(A)	1.75	1.70	1.60	1.30
	Temperature	Set Point	Allowable Range							
Cycle Use	25°C(77°F)	2.40	2.36~2.40	0.20C	Discharge	0.2C>(A)	0.2C<(A)<0.5C	0.5C<(A)<1.0C	(A)>1.0C	
Standby	25°C(77°F)	2.23	2.20~2.35							



Let UPG Power Your Life.

www.upgi.com