

# GEL 12V 40Ah



## Specification

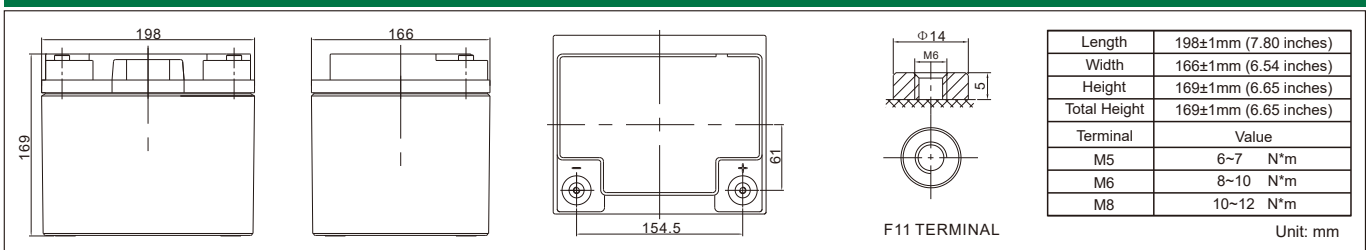
Cells Per Unit	6
Voltage Per Unit	12
Capacity	40Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 13.2 Kg (Tolerance±2%)
Internal Resistance	Approx. 9mΩ
Terminal	F4(M6)/F11(M6)
Max. Discharge Current	400A (5 sec)
Design Life	15 years (floating charge)
Maximum Charging Current	8.0A
Reference Capacity	C3 27.3AH C5 31.5AH C10 35.1AH C20 40.0AH
Float Charging Voltage	13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C/Cell
Cycle Use Voltage	14.2 V~14.4 V @ 25°C Temperature Compensation: -4mV/°C/Cell
Operating Temperature Range	Discharge: -40°C~60°C Charge: -20°C~50°C Storage: -40°C~60°C
Normal Operating Temperature Range	25°C±5°C
Self Discharge	Less than 3% at 25°C per month
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



## Application

- Solar/Wind Power System
- Uninterruptible Power Supplies (UPS)
- Electric Power Systems (EPS)
- Emergency Backup Power Supplies
- Communication Power Supplies
- DC Power Supplies
- Auto Control System

## Dimensions



## Constant Current Discharge Characteristics : A(25°C)

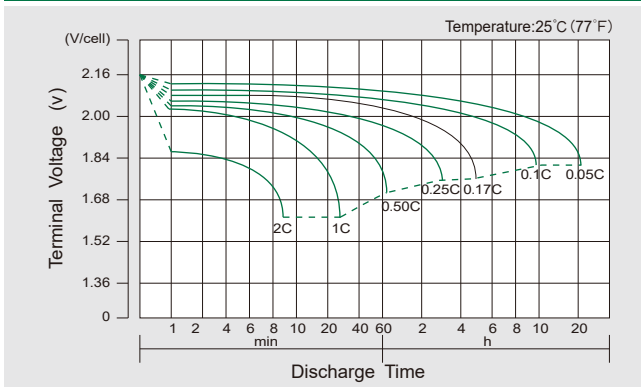
F.V/Time	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	58.02	38.15	22.36	13.37	9.23	7.65	6.44	4.40	3.65	2.20
1.65V	56.83	37.52	22.26	13.27	9.20	7.61	6.40	4.36	3.61	2.12
1.70V	55.93	37.19	22.05	13.17	9.13	7.58	6.36	4.33	3.58	2.06
1.75V	53.88	37.27	21.84	13.07	9.09	7.51	6.29	4.29	3.54	2.00
1.80V	50.25	36.98	21.33	12.84	8.84	7.33	6.17	4.22	3.51	1.88
1.85V	45.59	34.96	20.26	12.27	8.46	6.98	5.91	4.04	3.40	1.80

## Constant Power Discharge Characteristics : WPC(25°C)

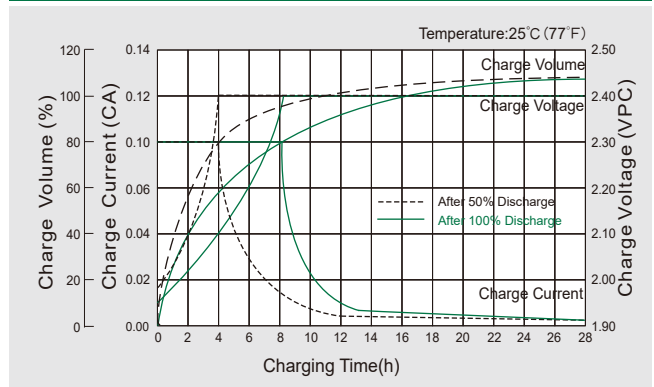
F.V/Time	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	105	71.3	43.1	26.3	18.3	15.2	12.8	8.75	7.27	3.89
1.65V	104	70.5	43.0	26.1	18.3	15.2	12.8	8.71	7.22	3.82
1.70V	103	70.7	42.6	26.0	18.2	15.1	12.7	8.65	7.16	3.75
1.75V	99	70.9	42.2	25.8	18.2	15.0	12.6	8.58	7.09	3.68
1.80V	92.5	70.5	41.5	25.5	17.7	14.7	12.3	8.44	7.02	3.61
1.85V	84.3	67.0	39.7	24.5	16.9	14.0	11.8	8.08	6.81	3.40

Note: The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values.

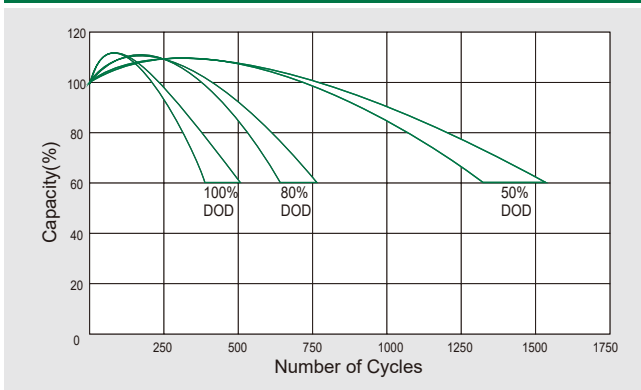
## Discharge Characteristics Curve



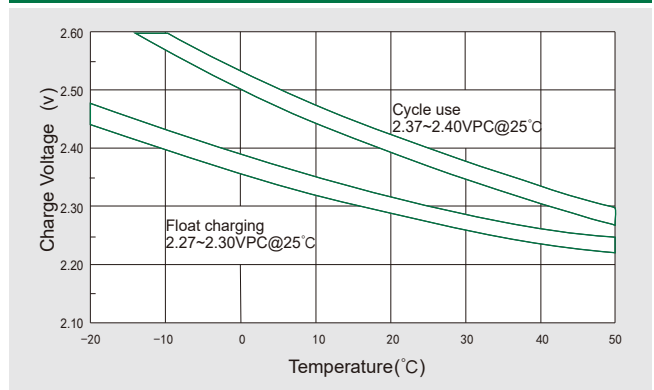
## Charge Characteristic Curve for Cycle Use(IU)



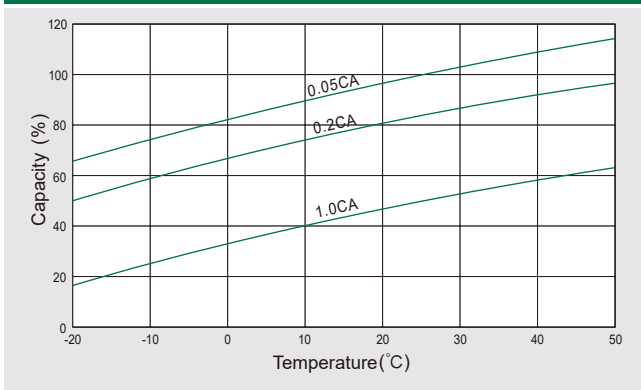
## Cycle Life in Relation to Depth of Discharge



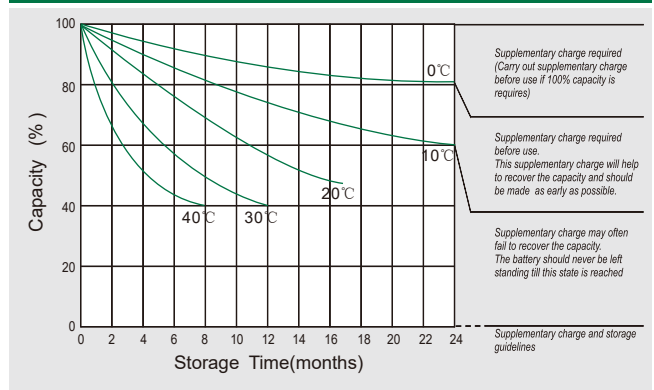
## Relationship Between Charging Voltage and Temperature



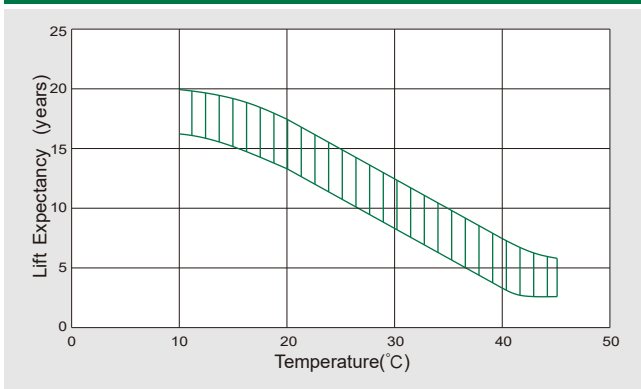
## Temperature Effects on Capacity



## Storage Characteristics



## Effect of Temperature on Long Term Life



## Relationship of OCV And State of Charge(20°C)

