

# GEL 12V 120Ah



## Specification

Cells Per Unit	6
Voltage Per Unit	12
Capacity	120Ah@20hr-rate to 1.75V per cell @25°C
Weight	Approx. 35.5 Kg (Tolerance±2%)
Internal Resistance	Approx. 5.5 mΩ
Terminal	F5(M8)/F12(M8)
Max. Discharge Current	1200A (5 sec)
Design Life	15 years (floating charge)
Maximum Charging Current	24.0A
Reference Capacity	C3 81.9AH C5 91.0AH C10 104.0AH C20 120.0AH
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

				<table border="1"> <tr> <td>Length</td> <td>406±1mm (16.0 inches)</td> </tr> <tr> <td>Width</td> <td>173±1mm (6.81 inches)</td> </tr> <tr> <td>Height</td> <td>210±1mm (8.27 inches)</td> </tr> <tr> <td>Total Height</td> <td>236±1mm (9.29 inches)</td> </tr> <tr> <td>Terminal</td> <td>Value</td> </tr> <tr> <td>M5</td> <td>6~7 N*m</td> </tr> <tr> <td>M6</td> <td>8~10 N*m</td> </tr> <tr> <td>M8</td> <td>10~12 N*m</td> </tr> </table>	Length	406±1mm (16.0 inches)	Width	173±1mm (6.81 inches)	Height	210±1mm (8.27 inches)	Total Height	236±1mm (9.29 inches)	Terminal	Value	M5	6~7 N*m	M6	8~10 N*m	M8	10~12 N*m
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Unit: mm																				

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

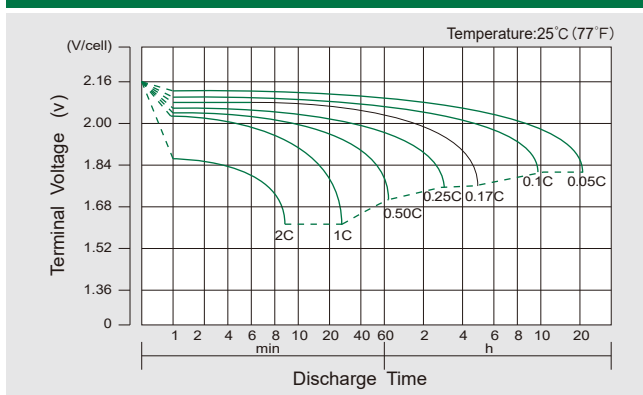
F.V/Time	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	164.2	110.0	67.1	40.1	27.7	22.7	18.6	12.8	10.8	6.60
1.65V	160.8	109.1	66.8	39.8	27.6	22.6	18.5	12.7	10.7	6.36
1.70V	158.3	108.4	66.1	39.5	27.4	22.5	18.4	12.6	10.6	6.18
1.75V	152.5	106.7	65.5	39.2	27.3	22.3	18.2	12.5	10.5	6.00
1.80V	142.2	103.0	64.0	38.5	26.6	21.8	17.8	12.3	10.4	5.64
1.85V	129.0	97.4	60.8	36.8	25.4	20.7	17.1	11.8	10.1	5.40

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

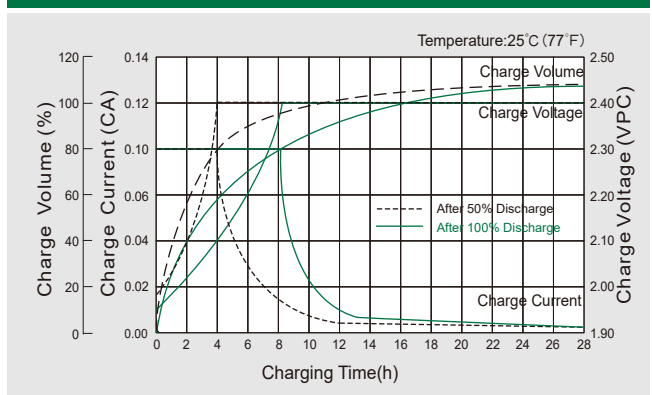
F.V/Time	15min	30min	1h	2h	3h	4h	5h	8h	10h	20h
1.60V	301	209	129	78.8	55.1	45.2	37.0	25.5	21.6	11.7
1.65V	296	207	129	78.4	55.0	45.1	36.9	25.4	21.5	11.5
1.70V	293	207	128	78.0	54.8	45.0	36.8	25.2	21.3	11.3
1.75V	283	204	127	77.4	54.6	44.6	36.3	25.0	21.1	11.0
1.80V	264	198	124	76.4	53.1	43.6	35.7	24.6	20.8	10.8
1.85V	241	188	119	73.6	50.8	41.5	34.2	23.6	20.2	10.2

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

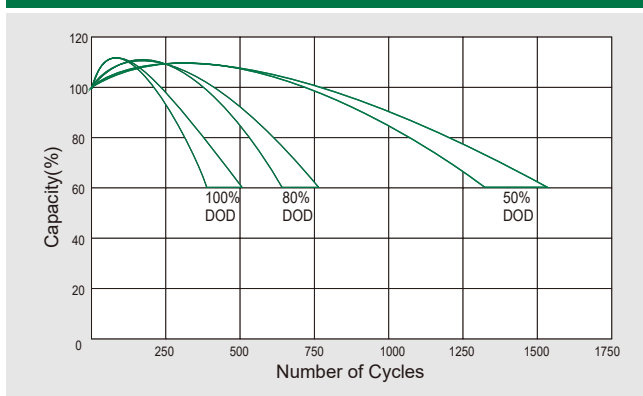
## Discharge Characteristics Curve



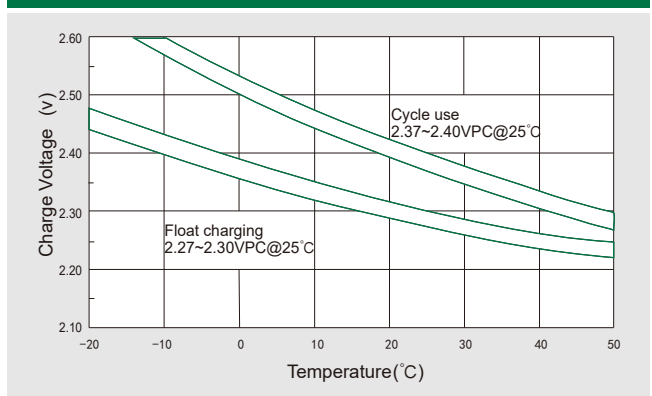
## Charge Characteristic Curve for Cycle Use(IU)



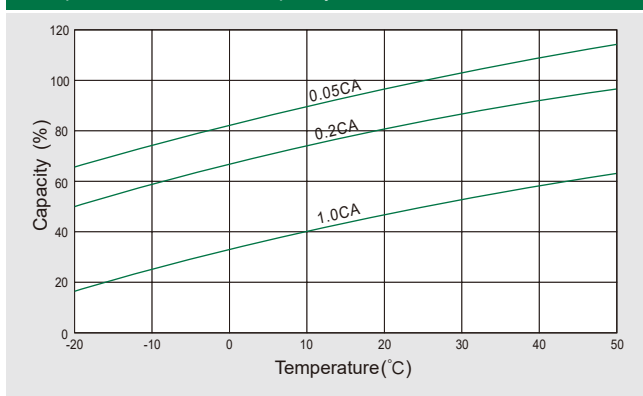
## Cycle Life in Relation to Depth of Discharge



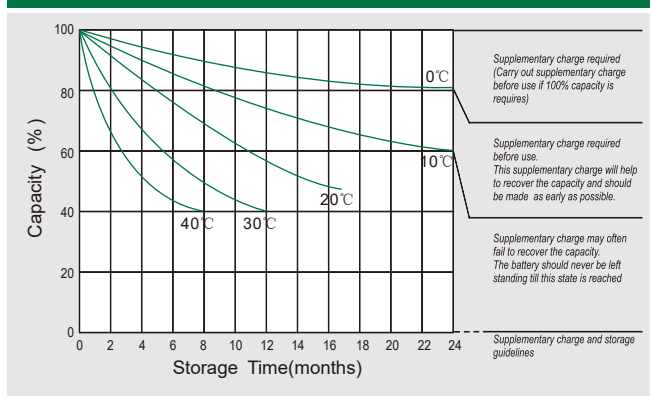
## Relationship Between Charging Voltage and Temperature



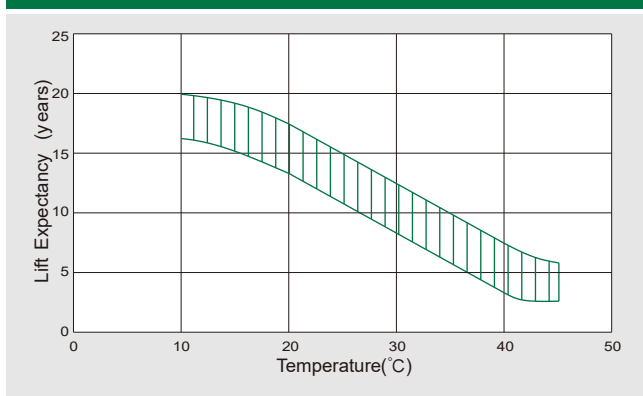
## Temperature Effects on Capacity



## Storage Characteristics



## Effect of Temperature on Long Term Life



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

