

# Sealed Lead-Acid Battery General Purpose GEL

727-0458(12V26Ah)

## Specification

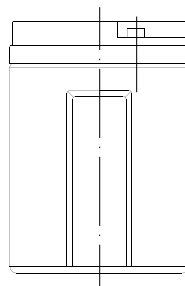
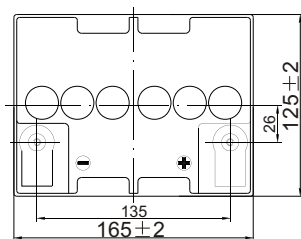
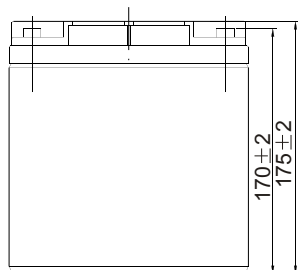
|                                            |                                                                                                                                                        |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cells Per Unit                             | 6                                                                                                                                                      |
| Voltage Per Unit                           | 12                                                                                                                                                     |
| Capacity                                   | 26.0Ah@20hr-rate to 1.80V per cell @25°C                                                                                                               |
| Weight                                     | Approx 8.7 kg                                                                                                                                          |
| Max. Discharge Current                     | 260A (5 sec)                                                                                                                                           |
| Internal Resistance                        | Approx 13.5mΩ                                                                                                                                          |
| Operating Temp.Range                       | Discharge : -15~50°C (5~122°F)<br>Charge : 0~40°C (32~104°F)<br>Storage : -15~40°C (5~104°F)                                                           |
| Nominal Operating Temp. Range              | 25±3°C (77±5°F)                                                                                                                                        |
| Float charging Voltage                     | 13.5 to 13.8 VDC/unit Average at 25°C                                                                                                                  |
| Recommended Maximum Charging Current Limit | 6.5A                                                                                                                                                   |
| Equalization and Cycle Service             | 14.4 to 15.0 VDC/unit Average at 25°C                                                                                                                  |
| Self Discharge                             | The batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using. |
| Terminal                                   | T12                                                                                                                                                    |
| Container Material                         | A.B.S. (UL94-HB), Flammability resistance of UL94-V0 can be available upon request.                                                                    |

## Applications

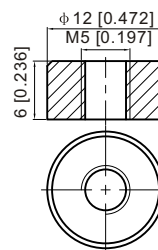
- ◆ Telecommunications
- ◆ Solar system
- ◆ Wind power system
- ◆ Engine starting
- ◆ Wheelchair
- ◆ Floor cleaning machines
- ◆ Golf trolley
- ◆ Boats

## Dimensions

Unit: mm Dimension: 166.5(L)×175(W)×125(H)



Terminal T12



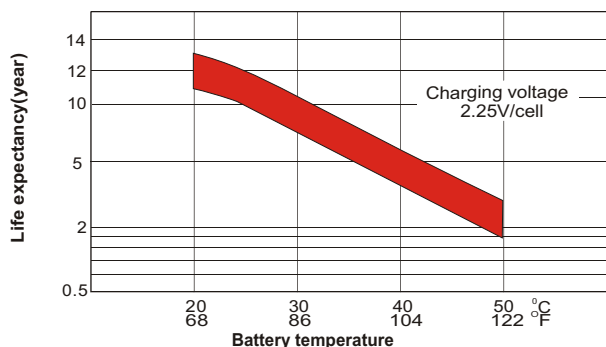
### Constant Current Discharge Characteristics : A (25 °C)

| F.V/Time | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|----------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 11.1V    | 37.8 | 27.9  | 23.9  | 22.0  | 17.3  | 13.2  | 11.0 | 6.99 | 5.33 | 4.41 | 3.81 | 3.29 | 2.63 | 2.27 | 1.25 |
| 10.8V    | 45.9 | 32.6  | 27.8  | 25.2  | 19.3  | 14.5  | 12.2 | 7.57 | 5.71 | 4.68 | 4.00 | 3.45 | 2.75 | 2.37 | 1.30 |
| 10.5V    | 54.3 | 37.8  | 31.7  | 28.3  | 21.2  | 15.7  | 13.0 | 8.02 | 6.03 | 4.90 | 4.16 | 3.58 | 2.84 | 2.42 | 1.33 |
| 10.2V    | 64.0 | 43.4  | 35.3  | 30.5  | 22.7  | 16.7  | 13.8 | 8.50 | 6.28 | 5.06 | 4.29 | 3.70 | 2.93 | 2.48 | 1.34 |
| 9.90V    | 69.3 | 46.0  | 36.8  | 31.7  | 23.6  | 17.3  | 14.3 | 8.72 | 6.48 | 5.19 | 4.38 | 3.76 | 2.97 | 2.50 | 1.36 |
| 9.60V    | 77.4 | 50.5  | 39.6  | 34.4  | 25.3  | 18.5  | 15.2 | 9.07 | 6.74 | 5.38 | 4.51 | 3.85 | 3.02 | 2.55 | 1.38 |

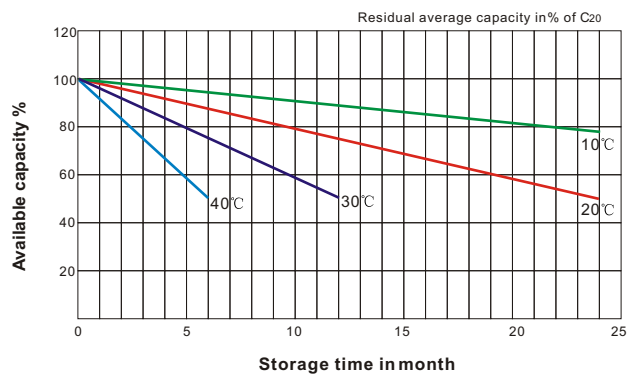
### Constant Power Discharge Characteristics : W (25 °C)

| F.V/Time | 5min  | 10min | 15min | 20min | 30min | 45min | 1h    | 2h    | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 11.1V    | 426.5 | 316.8 | 272.8 | 252.6 | 199.6 | 153.3 | 128.8 | 82.0  | 62.6 | 52.1 | 45.1 | 39.1 | 31.4 | 27.2 | 14.9 |
| 10.8V    | 509.9 | 364.4 | 312.1 | 285.5 | 221.0 | 167.8 | 141.4 | 88.3  | 66.9 | 55.0 | 47.3 | 40.9 | 32.8 | 28.3 | 15.5 |
| 10.5V    | 591.2 | 414.5 | 351.5 | 317.3 | 240.8 | 180.1 | 150.6 | 93.3  | 70.5 | 57.4 | 48.9 | 42.2 | 33.7 | 28.8 | 15.8 |
| 10.2V    | 682.7 | 468.4 | 385.4 | 338.2 | 255.6 | 189.8 | 158.5 | 98.5  | 73.2 | 59.2 | 50.3 | 43.6 | 34.7 | 29.5 | 16.0 |
| 9.90V    | 726.4 | 489.3 | 396.3 | 348.0 | 262.9 | 195.2 | 163.4 | 100.5 | 75.2 | 60.4 | 51.2 | 44.2 | 35.1 | 29.8 | 16.2 |
| 9.60V    | 795.7 | 527.1 | 419.6 | 372.9 | 278.7 | 208.1 | 172.6 | 104.0 | 77.9 | 62.5 | 52.7 | 45.1 | 35.7 | 30.3 | 16.4 |

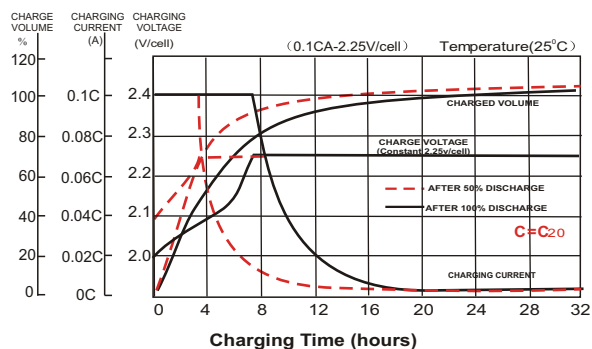
### Effect of Temperature on Long Term Float Life



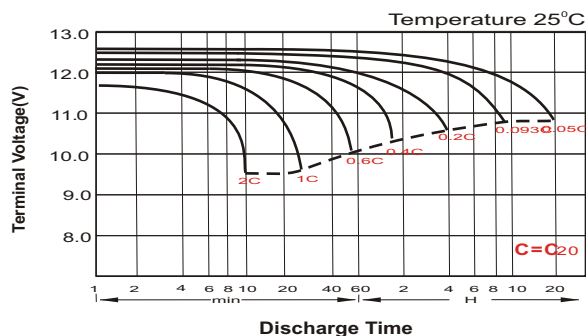
### Self Discharge Characteristics



### Float Charging Characteristics



### Discharge Characteristics



### Capacity Factors With Different Temperature

| Battery Type |        | -20°C | -10°C | 0°C | 5°C | 10°C | 20°C | 25°C | 30°C | 40°C | 45°C |
|--------------|--------|-------|-------|-----|-----|------|------|------|------|------|------|
| GEL Battery  | 6V&12V | 50%   | 70%   | 83% | 85% | 90%  | 98%  | 100% | 102% | 104% | 105% |

### Discharge Current VS. Discharge Voltage

| Final Discharge Voltage V/cell | 1.80V      | 1.75V             | 1.60V      |
|--------------------------------|------------|-------------------|------------|
| Discharge Current (A)          | (A) ≤ 0.2C | 0.2C < (A) < 1.0C | (A) ≥ 1.0C |

**Charge the batteries at least once every six months, if they are stored at 25°C.**

### Charging Method:

|                  |                                                 |
|------------------|-------------------------------------------------|
| Constant Voltage | -0.2Cx2h+2.4~2.45V/Cellx24h, Max. Current 0.3CA |
| Constant Current | -0.2Cx2h+0.1CAx 12h                             |
| Fast             | -0.2Cx2h+0.3CAx4.0h                             |

### Maintenance & Cautions

|                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Float Service:                                                                                                                                     |
| ◆very month, recommend inspection every battery voltage.                                                                                           |
| ◆Every three months, recommend equalization charge for one time.                                                                                   |
| Equalization charge method:                                                                                                                        |
| Discharge: 100% rate capacity discharge.                                                                                                           |
| Charge: Max. current 0.3CA, constant voltage 2.35V/Cell charge 24h.                                                                                |
| ◆Effect of temperature on float charge voltage: -3mV/°C/Cell.                                                                                      |
| ◆Length of service life will be directly affected by the number of discharge cycles, depth of discharge, ambient temperature and charging voltage. |

