

# **EXCELLENT BATTERY**

## **Company Introduction**

DongGuan Excellent technology co.Ltd. is a large manufacturer of valve regulated lead-acid (VRLA) battery. There are totally over 800 staffs in our production base where the battery design and production is well made together. We have developed our own brand 'Excellent' Battery. Most of them are sold to Europe, North & South America, West Africa & Middle East.

With over 10 years experiences in manufacturing battery, we can independently develop, design and produce battery. So we can reduce the cost of battery and furthermore make the price competitive in market.

Our innovative computer-integrated manufacturing technique combined; with strict quality assurance check, to guarantee that every battery meet our rigid quality and performance standard. High quality, on-time delivery, most competitive price and wide application, all of this made our battery establish reputation in the market.

Our product has been honored ISO9001, CE and UL internationally.

VRLA battery consists of three series:

GB series(12V), capacity from 1.2Ah to 28Ah, the design life standby is 3-5 years.

GB series(12V), capacity from 33Ah to 200Ah, the design life standby is 7-10 years.

GB series(2V), capacity from 100Ah to 3000Ah, the design life standby is above 15 years.

FT series, capacity from 50Ah to 200Ah, the design life standby is 10 years.

FTG series, capacity from 50Ah to 200Ah, the design life standby is 12 years.

We have been adhering to our permanent principle that "quality make future" and We sincerely invite you to cooperate with us shoulder by shoulder in the future.

# GENERAL PURPOSE AGM BATTERY

## GB Series



### Key Features and Benefits

- ◆ Valve-Regulated Lead Acid-AGM technology battery
- ◆ Top terminal design
- ◆ Flexible design for multiple installation space
- ◆ Long life, low self-discharge rate and high reliability.
- ◆ Self-regulating pressure relief valve with flame arrester
- ◆ Flame retardant ABS case (UL94 V-0, optional)
- ◆ Design floating life at 25°C (77°F): 5~12 years

### Typical applications

- ◆ Uninterrupted Power Supply (UPS)
- ◆ Communication Equipments
- ◆ Cable Television
- ◆ Security Systems
- ◆ Control Equipments
- ◆ Medical Equipments
- ◆ Power Tools and toys

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DongGuan Excellent Battery Technology Co., Ltd

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# APPLICATION

On the application of the product





## Range Summary

Excellent GB Series is a general purpose battery series widely used in float power backup service. It meets with IEC and JIS standards .With up-dated AGM valve regulated technology and high purity raw materials, the GB series battery has reliable standby service life. It is suitable for UPS/EPS, medical equipment, emergency light and security systems applications.

## Construction

- ◆ Positive plate – High Sn low Ca grid to resist corrosion and prolong life
- ◆ Negative plate – Balanced Pb-Ca grid for improved recombination efficiency
- ◆ Separator – Advanced AGM separator, electrolyte absorbed in AGM, no liquid flow
- ◆ Electrolyte – Dilute high purity sulphuric acid
- ◆ Battery container and cover - ABS UL94-HB (Optional flame retardant ABS UL94-V0)
- ◆ Safety valve - Calibrated opening pressure , the valve equipped with flame arrestors for increased

## Specifications

| Model    | Volt | Nominal Capacity<br>(AH) | Dimension (±2mm) |       |        |              | Weight<br>±2%<br>kg | Terminal |
|----------|------|--------------------------|------------------|-------|--------|--------------|---------------------|----------|
|          | (V)  |                          | Length           | Width | Height | Total Height |                     |          |
| GB6-1.3  | 6    | 1.3                      | 97               | 24    | 52     | 58           | 0.31                | F1       |
| GB6-4L   | 6    | 3.0                      | 70               | 47    | 100    | 106          | 0.58                | F1       |
| GB6-4    | 6    | 4.0                      | 70               | 47    | 100    | 106          | 0.68                | F1       |
| GB6-4.5  | 6    | 4.5                      | 70               | 47    | 100    | 106          | 0.71                | F1       |
| GB12-1.3 | 12   | 1.3                      | 97               | 43    | 52     | 58           | 0.51                | F1       |
| GB12-2.3 | 12   | 2.3                      | 178              | 35    | 61     | 67           | 0.84                | F1       |
| GB12-3.3 | 12   | 3.3                      | 134              | 67    | 61     | 67           | 1.23                | F1       |
| GB12-4   | 12   | 4.0                      | 90               | 70    | 101    | 107          | 1.25                | F1/F2    |
| GB12-4.5 | 12   | 4.5                      | 90               | 70    | 101    | 107          | 1.42                | F1/F2    |
| GB12-5A  | 12   | 5.0                      | 90               | 70    | 101    | 107          | 1.52                | F1/F2    |
| GB12-5B  | 12   | 5.0                      | 151              | 65    | 95     | 101          | 1.78                | F1/F2    |
| GB12-6   | 12   | 6.0                      | 151              | 65    | 95     | 101          | 1.85                | F1/F2    |
| GB12-6.5 | 12   | 6.5                      | 151              | 65    | 95     | 101          | 1.95                | F1/F2    |
| GB12-7L  | 12   | 4.0                      | 151              | 65    | 95     | 101          | 1.78                | F1/F2    |
| GB12-7   | 12   | 7.0                      | 151              | 65    | 95     | 101          | 2.00                | F1/F2    |
| GB12-7.2 | 12   | 7.2                      | 151              | 65    | 95     | 101          | 2.05                | F1/F2    |
| GB12-7.5 | 12   | 7.5                      | 151              | 65    | 95     | 101          | 2.10                | F1/F2    |
| GB12-8   | 12   | 8.0                      | 151              | 65    | 95     | 101          | 2.30                | F1/F2    |
| GB12-9   | 12   | 9.0                      | 151              | 65    | 95     | 101          | 2.40                | F1/F2    |



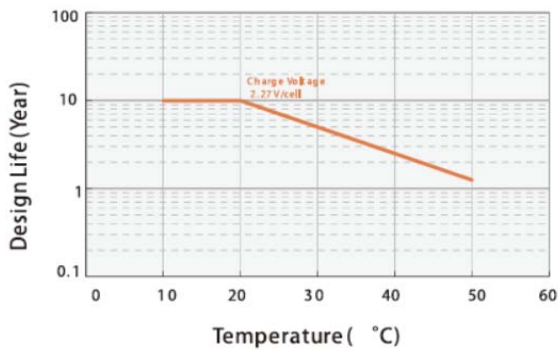
| Model     | Volt | Nominal Capacity | Dimension (±2mm) |       |        |              | Weight ±2% | Terminal |
|-----------|------|------------------|------------------|-------|--------|--------------|------------|----------|
|           | (V)  | (AH)             | Length           | Width | Height | Total Height | kg         |          |
| GB12-12L  | 12   | 9                | 151              | 98    | 95     | 101          | 3.00       | F1/F2    |
| GB12-12   | 12   | 12               | 151              | 98    | 95     | 101          | 3.25       | F1/F2    |
| GB12-15   | 12   | 15               | 181              | 77    | 167    | 167          | 4.35       | F13      |
| GB12-17   | 12   | 16               | 181              | 77    | 167    | 167          | 4.90       | F3/F13   |
| GB12-18   | 12   | 17               | 181              | 77    | 167    | 167          | 5.00       | F3/F13   |
| GB12-20   | 12   | 20               | 181              | 77    | 167    | 167          | 5.15       | F3/F13   |
| GB12-24   | 12   | 24               | 175              | 166   | 125    | 125          | 7.30       | F3/F13   |
| GB12-26   | 12   | 26               | 175              | 166   | 125    | 125          | 7.50       | F3/F13   |
| GB12-28   | 12   | 28               | 175              | 166   | 125    | 125          | 8.30       | F4/F13   |
| GB12-33   | 12   | 33               | 195              | 130   | 159    | 180          | 9.30       | F11      |
| GB12-40   | 12   | 40               | 197              | 165   | 170    | 170          | 11.20      | F11      |
| GB12-45   | 12   | 45               | 197              | 165   | 170    | 170          | 12.30      | F11      |
| GB12-50L  | 12   | 50               | 197              | 165   | 170    | 170          | 13.90      | F11      |
| GB12-50   | 12   | 50               | 230              | 138   | 211    | 215          | 16.30      | F11      |
| GB12-55   | 12   | 55               | 230              | 138   | 211    | 215          | 17.00      | F11      |
| GB12-65   | 12   | 60               | 350              | 167   | 179    | 183          | 19.00      | F11      |
| GB12-70   | 12   | 70               | 259              | 169   | 208    | 227          | 21.50      | F11      |
| GB12-75   | 12   | 75               | 259              | 169   | 208    | 227          | 22.50      | F11      |
| GB12-85   | 12   | 85               | 259              | 169   | 208    | 227          | 23.20      | F11      |
| GB12-95   | 12   | 95               | 306              | 168   | 207    | 212          | 27.00      | F11      |
| GB12-100A | 12   | 100              | 330              | 171   | 214    | 220          | 27.50      | F11/F12  |
| GB12-100B | 12   | 100              | 330              | 171   | 214    | 220          | 29.50      | F11/F12  |
| GB12-120  | 12   | 120              | 405              | 173   | 227    | 236          | 34.00      | F12      |
| GB12-130  | 12   | 130              | 405              | 173   | 227    | 236          | 35.00      | F12      |
| GB12-150  | 12   | 150              | 483              | 170   | 240    | 240          | 42.50      | F12      |
| GB12-160  | 12   | 160              | 530              | 207   | 210    | 213          | 47.50      | F12      |
| GB12-180  | 12   | 180              | 530              | 207   | 210    | 213          | 52.50      | F12      |
| GB12-200A | 12   | 200              | 522              | 238   | 218    | 222          | 57.00      | F12      |
| GB12-200B | 12   | 200              | 522              | 238   | 218    | 222          | 60.00      | F12      |
| GB12-230  | 12   | 230              | 522              | 269   | 203    | 206          | 65.00      | F12      |
| GB12-260  | 12   | 260              | 522              | 269   | 220    | 223          | 70.00      | F12      |

**EXCELLENT BATTERY**

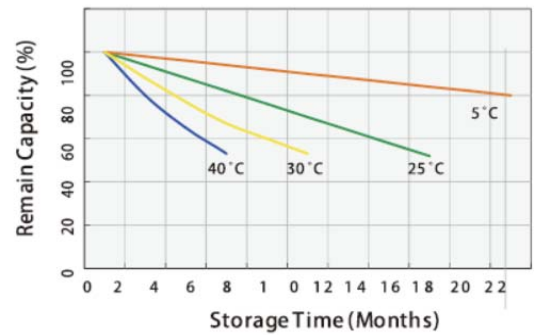
| Model    | Volt | Nominal Capacity | Dimension (±2mm) |       |        |              | Weight ±2% | Terminal |
|----------|------|------------------|------------------|-------|--------|--------------|------------|----------|
|          | (V)  | (AH)             | Length           | Width | Height | Total Height | kg         |          |
| GB2-100  | 2    | 100              | 171              | 72    | 205    | 210          | 5.6        | F10      |
| GB2-150  | 2    | 150              | 171              | 102   | 206    | 230          | 8          | F10      |
| GB2-200  | 2    | 200              | 171              | 111   | 330    | 364          | 12.8       | F10      |
| GB2-300  | 2    | 300              | 171              | 151   | 330    | 364          | 18         | F10      |
| GB2-400  | 2    | 400              | 210              | 175   | 330    | 367          | 25         | F10      |
| GB2-500  | 2    | 500              | 241              | 175   | 330    | 365          | 30         | F10      |
| GB2-600  | 2    | 600              | 302              | 175   | 330    | 367          | 36         | F10      |
| GB2-800  | 2    | 800              | 410              | 175   | 330    | 367          | 50         | F10      |
| GB2-1000 | 2    | 1000             | 475              | 175   | 330    | 367          | 60         | F10      |
| GB2-1200 | 2    | 1200             | 475              | 175   | 330    | 367          | 65         | F10      |
| GB2-1500 | 2    | 1500             | 400              | 350   | 345    | 382          | 93         | F10      |
| GB2-2000 | 2    | 2000             | 490              | 350   | 345    | 382          | 120        | F10      |
| GB2-3000 | 2    | 3000             | 710              | 352   | 345    | 382          | 180        | F10      |

## Performance Curve

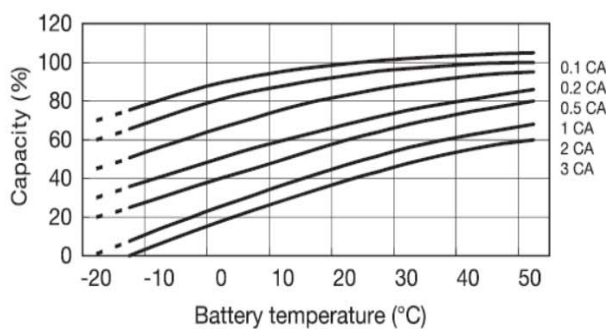
Battery Life with Different Temperature



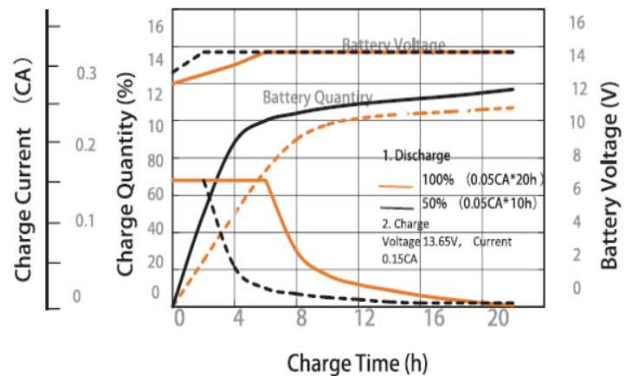
Self discharge with different Temperature



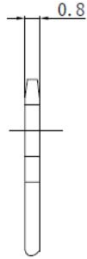
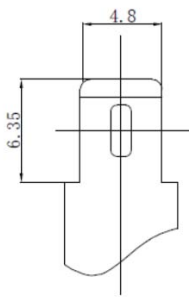
Capacity with Different Discharge Rate & Temperature



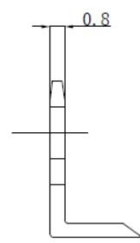
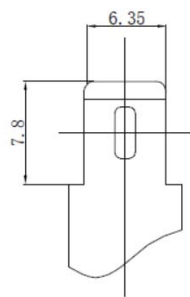
Charge Characteristics



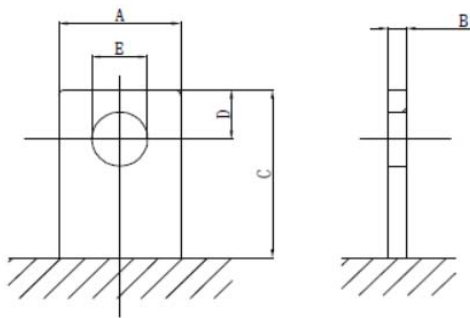
# TERMINAL TYPE



F1

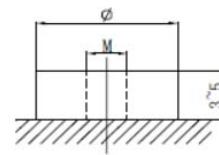


F2



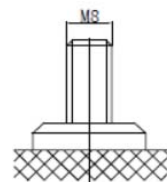
F3 F4 F5 F6 F7 F8 F9  
F16 F17 F27

| TYPE | A    | B   | C  | D    | E    |
|------|------|-----|----|------|------|
| F3   | 12   | 2.0 | 12 | 5.0  | ∅5.5 |
| F4   | 14.3 | 2.0 | 12 | 4.5  | ∅6.0 |
| F5   | 20   | 3.0 | 18 | 7.5  | ∅8.0 |
| F6   | 16.5 | 8.0 | 17 | 8.0  | ∅6.0 |
| F7   | 17   | 6.0 | 16 | 8.0  | ∅8.0 |
| F8   | 20   | 12  | 22 | 9.0  | ∅7.5 |
| F9   | 23.5 | 10  | 25 | 11.5 | ∅7.5 |
| F16  | 22   | 4.0 | 22 | 10   | ∅8.5 |
| F17  | 24   | 8.0 | 24 | 11.5 | ∅10  |
| F27  | 27   | 8.0 | 25 | 12   | ∅10  |
| S4f  | 14   | 2.0 | 13 | 5.5  | ∅7.0 |
| S4b  | 18   | 4.7 | 14 | 6.5  | ∅8.0 |

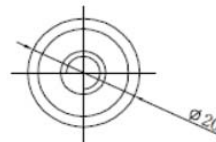


F10 F11 F12 F13  
F14 F15 F18 F20  
F21 F22 F23

| TYPE | F10 | F11 | F12 | F13 | F14 | F15 | F18 | F20 | F21 | F22 | F23 |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| M    | 8   | 6   | 8   | 5   | 6   | 8   | 6   | 8   | 6   | 5   | 8   |
| ∅    | 20  | 14  | 16  | 12  | 18  | 19  | 21  | 24  | 16  | 14  | 18  |



F26



## **EXCELLENT BATTERY**

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