



# KBFS SERIES-F.T. Solar

## KBFS122500 (12V250AH)

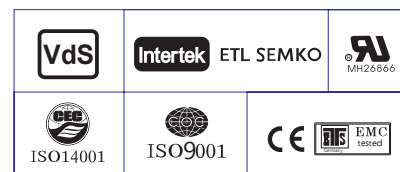
### Specification

|                                  |   |                               |
|----------------------------------|---|-------------------------------|
| Nominal Voltage                  | 12V   |                               |
| Nominal Capacity(100HR)          | 250.0AH   |                               |
| Dimension                        | Length  | 560±2mm (22.05 inches)        |
|                                  | Width   | 126±2mm (4.96 inches)         |
|                                  | Container Height  | 320±2mm (12.60 inches)        |
|                                  | Total Height (with Terminal)  | 320±2mm (12.60 inches)        |
| Approx Weight                    | Approx 60.0Kg (132.3 lbs)   |                               |
| Terminal                         | T11   |                               |
| Container Material               | ABS   |                               |
| Rated Capacity                   | 250.0 AH/2.5A   | (100hr, 1.8V/cell, 25°C/77°F) |
|                                  | 210.0 AH/10.5A  | (20hr, 1.80V/cell, 25°C/77°F) |
|                                  | 200.0 AH/20.0A  | (10hr, 1.80V/cell, 25°C/77°F) |
|                                  | 188.8 AH/23.6A  | (8hr, 1.80V/cell, 25°C/77°F)  |
|                                  | 173.0 AH/34.6A  | (5hr, 1.75V/cell, 25°C/77°F)  |
| Max. Discharge Current           | 1600A (5s)  |                               |
| Internal Resistance              | Approx 2.7mΩ  |                               |
| Operating Temp. Range            | Discharge   | -15~50°C (5~122°F)            |
|                                  | Charge  | 0~40°C (32~104°F)             |
|                                  | Storage   | -15~40°C (5~104°F)            |
| Nominal Operating Temp. Range    | 25±3°C (77±5°F)   |                               |
| Cycle Use                        | Initial Charging Current less than 60.0A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C   |                               |
|                                  | Standby Use: No limit on Initial Charging Current Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C   |                               |
| Capacity affected by Temperature | 40°C (104°F)  | 103%                          |
|                                  | 25°C (77°F)   | 100%                          |
|                                  | 0°C (32°F)  | 86%                           |
| Self Discharge                   | Kaise KBFS series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter. |                               |



### Applications

- ◆ Green energy systems (solar, wind, hydro, etc)
- ◆ Solar power stations Telecommunications
- ◆ installations Measurement stations
- ◆ Pump systems
- ◆ Signal station
- ◆ Survey and Mapping system Emergency
- ◆ lighting
- ◆ Railway crossing
- ◆ Traffic lights
- ◆ Street lightening
- ◆ Lawn lamp
- ◆ Street signs
- ◆ SOS pillars
- ◆ Alarm installations
- ◆ Weekend cottage camping Caravans
- ◆ Boats or buoys



### Constant Current Discharge (Amperes) at 25 °C (77°F)

| F.V/Time   | 10min | 15min | 20min | 30min | 45min | 1h    | 2h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  | 100h |
|------------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 287.5 | 252.9 | 226.7 | 185.7 | 143.2 | 115.7 | 67.5 | 39.6 | 33.2 | 28.7 | 22.8 | 19.0 | 10.1 | 2.4  |
| 1.80V/cell | 334.0 | 291.9 | 252.9 | 199.6 | 151.4 | 121.1 | 69.9 | 40.8 | 34.2 | 29.5 | 23.6 | 20.0 | 10.5 | 2.5  |
| 1.75V/cell | 368.6 | 314.2 | 269.6 | 207.6 | 156.1 | 124.7 | 71.5 | 41.3 | 34.6 | 29.9 | 24.0 | 20.1 | 10.6 | 2.6  |
| 1.70V/cell | 392.5 | 329.3 | 280.4 | 214.7 | 159.1 | 126.7 | 72.5 | 41.9 | 34.9 | 30.3 | 24.3 | 20.3 | 10.7 | 2.7  |
| 1.67V/cell | 410.4 | 340.4 | 286.3 | 219.1 | 162.5 | 129.2 | 73.5 | 42.3 | 35.4 | 30.6 | 24.5 | 20.5 | 10.8 | 2.8  |
| 1.60V/cell | 428.3 | 349.9 | 294.7 | 223.5 | 164.9 | 131.2 | 74.4 | 42.7 | 35.7 | 30.9 | 24.8 | 20.7 | 10.8 | 2.8  |

### Constant Power Discharge (Watts) at 25 °C (77°F)

| F.V/Time   | 10min | 15min | 20min | 30min | 45min | 1h    | 2h    | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  | 100h |
|------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|
| 1.85V/cell | 536.8 | 477.0 | 431.8 | 357.7 | 278.0 | 225.5 | 132.4 | 78.2 | 65.8 | 57.1 | 45.5 | 38.0 | 20.2 | 4.51 |
| 1.80V/cell | 616.5 | 543.2 | 474.8 | 378.7 | 291.7 | 234.7 | 136.2 | 80.2 | 67.3 | 58.3 | 47.0 | 39.7 | 21.0 | 4.59 |
| 1.75V/cell | 669.5 | 577.5 | 501.3 | 390.5 | 298.1 | 240.6 | 138.8 | 80.9 | 68.0 | 59.0 | 47.6 | 40.1 | 21.2 | 4.62 |
| 1.70V/cell | 696.9 | 597.0 | 517.4 | 401.8 | 302.5 | 243.6 | 140.4 | 81.9 | 68.4 | 59.7 | 48.1 | 40.5 | 21.3 | 4.68 |
| 1.67V/cell | 725.8 | 614.6 | 526.3 | 409.1 | 308.1 | 248.0 | 142.2 | 82.6 | 69.3 | 60.1 | 48.5 | 40.8 | 21.4 | 4.74 |
| 1.60V/cell | 736.6 | 619.3 | 534.0 | 411.9 | 309.2 | 249.3 | 142.6 | 82.9 | 69.6 | 60.4 | 48.9 | 41.1 | 21.5 | 4.78 |

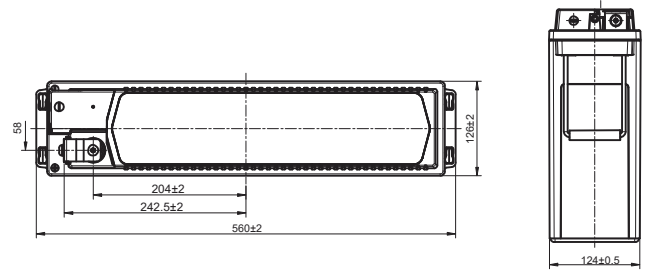
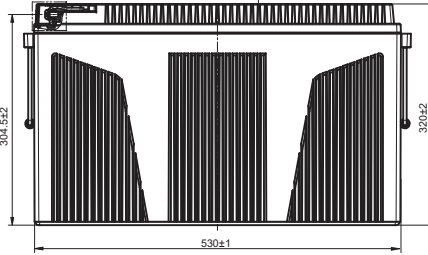
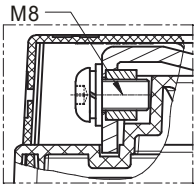
Specifications subject to change without notice.



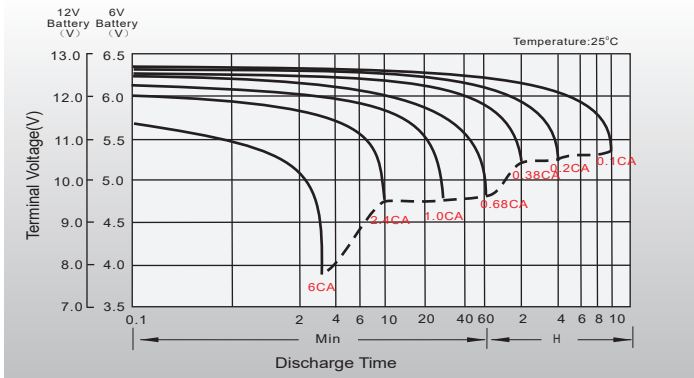
# Characteristics

## T11 Terminal

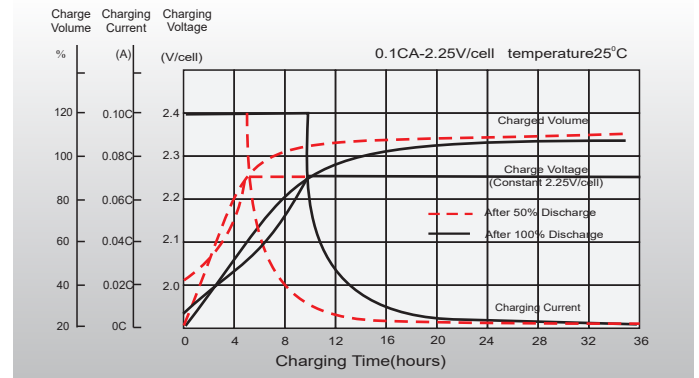
Unit: mm



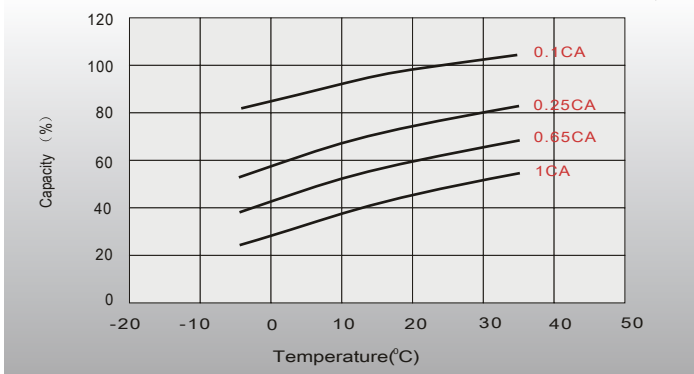
## Discharge Characteristics



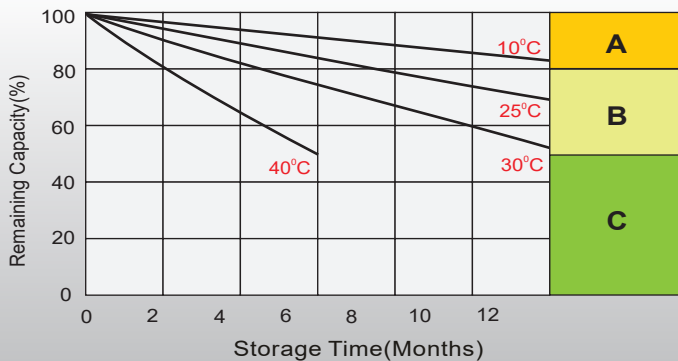
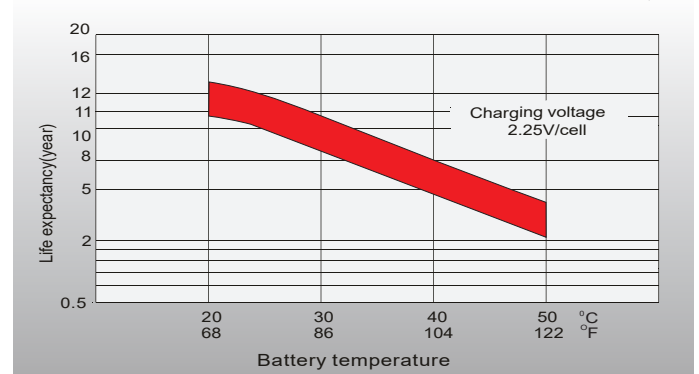
## Float Charging Characteristics



## Temperature Effects in Relation to Battery Capacity



## Effect of Temperature on Long Term Float Life



## Self Discharge Characteristics

- A** No supplementary charge required  
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
  1. Charged for above 3 days at limited current 0.25CA and constant volatge 2.25V/cell.
  2. Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.
  3. Charged for 8~10hours at limited current 0.05CA .
- C** Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.