

## DURATION SERIES VRLA BATTERY

By combining up-to-date DCP-II formula in the positive plates and enhanced electrolyte for VRLA, bosfa created an innovative range of DC batteries. This range features deep cycling use with higher cyclic life when compared with the standard Duration range. This series is highly suited to cyclic applications such as outdoor applications, small RE systems and electric vehicles.

6 V  
voltage

180Ah  
capacity

AGM  
tech

Enhanced  
deep cycling



## TECHNICAL SPECIFICATIONS

|                                                 |                                                              |
|-------------------------------------------------|--------------------------------------------------------------|
| Nominal Voltage (V)                             | 6 (3 cells per unit)                                         |
| Designed Floating Life (20°C)                   | 12 Years                                                     |
| Nominal Capacity (20°C)                         | 180 Ah @ 10HR-rate (to 1.80Vpc)                              |
| Dimension (mm)                                  | L307mm x W169mm x H225mm                                     |
| Approx. Weight                                  | 24.0 kg (52.9 lbs)                                           |
| Terminal Type                                   | Female Copper Insert M8 (torque:10~12N.m)                    |
| Internal Resistance                             | Approx. 0.0032 Ohm (fully charged @ 20°C)                    |
| Max. Charge Current                             | 37.5A                                                        |
| Max. Discharge Current (5S)                     | 1000 A                                                       |
| Short Circuit Current                           | 1850 A                                                       |
| Self Discharge                                  | Approx. 3% per month @ 20°C                                  |
| Ambient Temperature                             | Discharge: -20~60°C<br>Charge: -20~60°C<br>Storage: -20~45°C |
| Float Charge Voltage (20~25°C)                  | 6.8-6.9V (-3mV/ cell / °C)                                   |
| Equalize and cycle Use Charge Voltage (20~25°C) | 7.2-7.4V (-5mV/ cell / °C)                                   |
| Container Material                              | ABS (UL94-V0 optional)                                       |



ISO9001



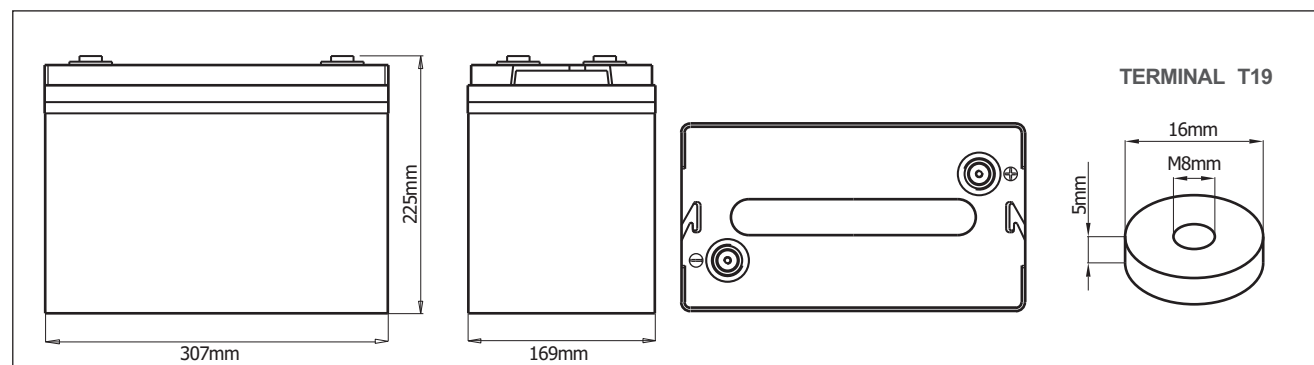
ISO14001



### Complied standards

- IEC 60896-21/22
- JIS C8704
- GB/T19638

## BATTERY DIMENSIONS

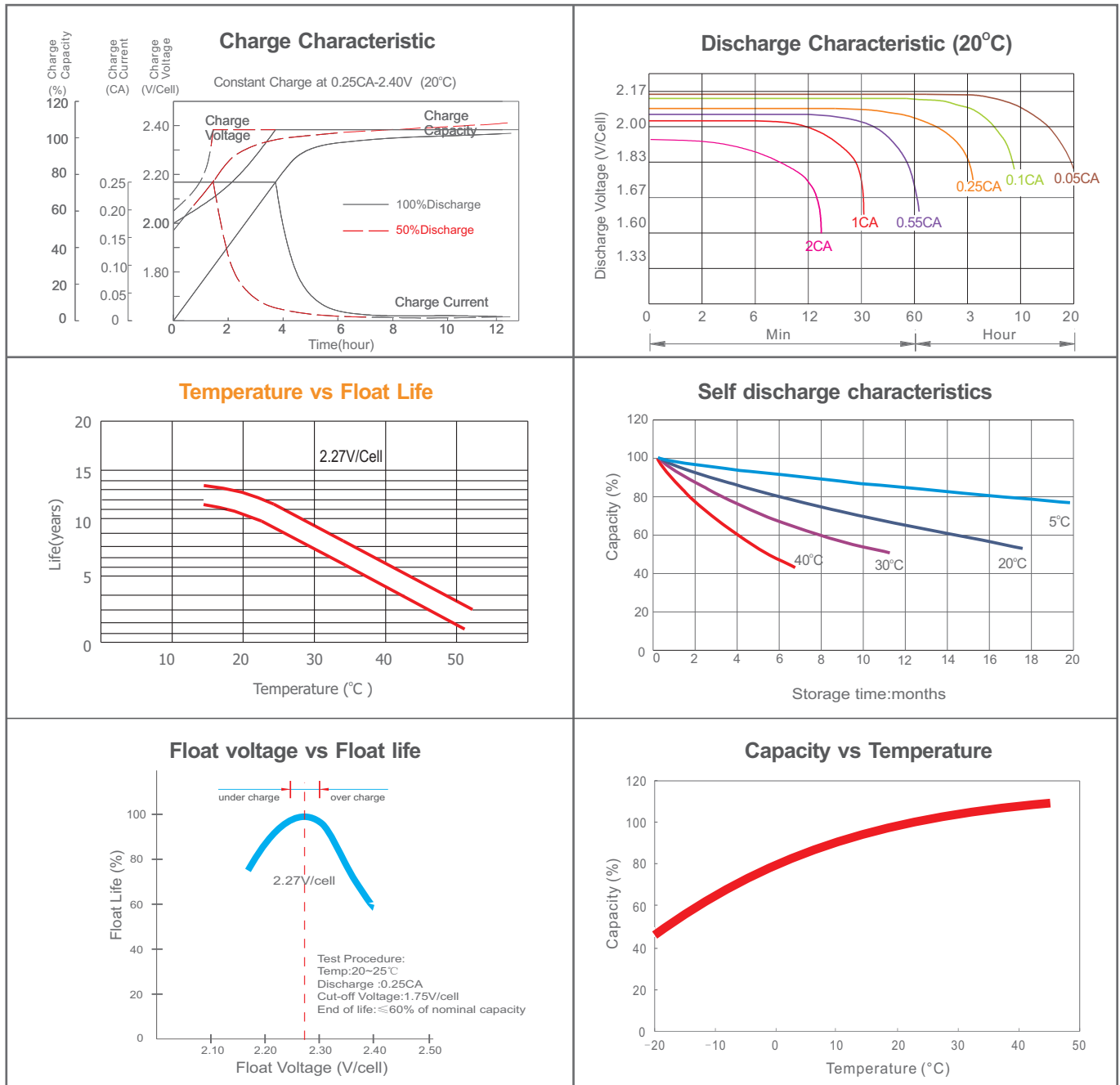


## BATTERY DISCHARGE TABLE

| Constant Current Discharge Characteristics: Amps (25°C) |         |         |         |     |      |      |      |      |      |      |      |
|---------------------------------------------------------|---------|---------|---------|-----|------|------|------|------|------|------|------|
| F.V/Tim e                                               | 10 m in | 15 m in | 30 m in | 1 h | 2 h  | 3 h  | 4 h  | 5 h  | 8 h  | 10 h | 20 h |
| 1.60 V                                                  | 383     | 316     | 195     | 119 | 69.9 | 50.5 | 40.7 | 33.9 | 23.1 | 19.1 | 10.3 |
| 1.67 V                                                  | 352     | 298     | 186     | 116 | 68.7 | 49.9 | 40.1 | 33.4 | 22.8 | 18.8 | 10.0 |
| 1.70 V                                                  | 320     | 281     | 179     | 113 | 67.8 | 49.3 | 39.7 | 33.1 | 22.5 | 18.6 | 9.82 |
| 1.75 V                                                  | 298     | 261     | 173     | 111 | 66.7 | 48.5 | 39.3 | 32.7 | 22.2 | 18.4 | 9.63 |
| 1.80 V                                                  | 271     | 244     | 165     | 107 | 65.2 | 47.6 | 38.4 | 31.9 | 21.7 | 18.0 | 9.45 |
| 1.85 V                                                  | 244     | 222     | 156     | 103 | 62.7 | 46.0 | 37.3 | 31.2 | 21.2 | 17.5 | 9.23 |

| Constant Power Discharge Characteristics: W/cell (25°C) |         |         |         |     |     |      |      |      |      |      |      |
|---------------------------------------------------------|---------|---------|---------|-----|-----|------|------|------|------|------|------|
| F.V/Tim e                                               | 10 m in | 15 m in | 30 m in | 1 h | 2 h | 3 h  | 4 h  | 5 h  | 8 h  | 10 h | 20 h |
| 1.60 V                                                  | 687     | 576     | 360     | 222 | 131 | 95.3 | 77.1 | 64.5 | 44.5 | 36.9 | 19.9 |
| 1.67 V                                                  | 640     | 547     | 345     | 218 | 130 | 94.8 | 76.5 | 64.1 | 44.1 | 36.6 | 19.6 |
| 1.70 V                                                  | 588     | 521     | 335     | 214 | 129 | 94.3 | 76.3 | 64.0 | 43.9 | 36.4 | 19.3 |
| 1.75 V                                                  | 552     | 489     | 326     | 211 | 128 | 93.7 | 76.1 | 63.7 | 43.7 | 36.2 | 19.1 |
| 1.80 V                                                  | 508     | 461     | 315     | 206 | 126 | 92.7 | 75.0 | 62.7 | 43.0 | 35.8 | 18.9 |
| 1.85 V                                                  | 463     | 424     | 300     | 199 | 123 | 90.4 | 73.5 | 61.7 | 42.3 | 35.0 | 18.5 |

## CHARACTERISTICS

FINAL VOLTAGE SETTINGS RECOMMENDED  
ACCORDING TO THE DISCHARGE CURRENT

| Discharge Current I (A) | $I \leq 0.08C$    | $0.08C \leq I < 0.2C$ | $0.2C \leq I < 0.6C$ | $0.6C \leq I < 1.0C$ | $I \geq 1.0C$     |
|-------------------------|-------------------|-----------------------|----------------------|----------------------|-------------------|
| Final of Voltage        | $\geq 1.85V_{pc}$ | $\geq 1.80V_{pc}$     | $\geq 1.75V_{pc}$    | $\geq 1.70V_{pc}$    | $\geq 1.60V_{pc}$ |