

*Sovereign*

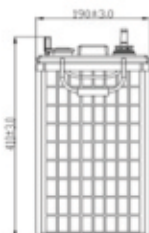
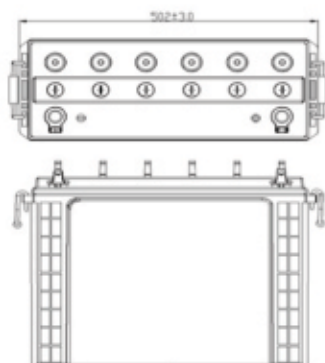
# TALL TUBULAR CONVENTIONAL BATTERY (100Ah to 200Ah)



Edition  
2023-24



## TECHNICAL SPECIFICATION - Tall Tubular Conventional Battery



### Product Features :-

1. Robust Tubular with High pressure die-cast spine - rate of spine corrosion is very low
2. Ceramic Vent Plugs- Special ceramic vent plugs for controlled acid fumes.
3. Optimized Negative paste recipe for fast charge acceptance
4. Consistent backup throughout life
5. Excellent behavior in PSOC condition as compare
6. Low Self Discharge
7. Excellent performance on deep Cyclic application as compare to AGM VRLA
8. Very High Design & service life
9. Low water loss

### EM100 (12V 100 Ah @ C20 )

#### Technical Specifications

| Nominal Voltage | Rated Capacity<br>20 Hr @ 27 °C [Ah] | Dimensions in mm   |                   |                    | Filled Battery Weight (Kg)<br>[±3 %] |
|-----------------|--------------------------------------|--------------------|-------------------|--------------------|--------------------------------------|
|                 |                                      | Length<br>[± 3 mm] | Width<br>[± 3 mm] | Height<br>[± 3 mm] |                                      |
| 12              | 100                                  | 505                | 190               | 410                | 50.50                                |

#### Electrical Parameters & Charging Profile

| Battery Specified Capacity Test @ 27°C |             |            |               |            |            |
|----------------------------------------|-------------|------------|---------------|------------|------------|
| C20 @10.5 V                            | C10 @10.5 V | C7 @10.5 V | C5 @10.5 V    | C3 @10.5 V | C1 @10.5 V |
| 100                                    | 90          | 83         | 75            | 65         | 45         |
| Ah & Wh Efficiency                     |             |            |               |            |            |
| Ah Efficiency                          |             | >90%       | Wh Efficiency |            | >75%       |

### EM150 (12V 150 Ah @ C20 )

#### Technical Specifications

| Nominal Voltage | Rated Capacity<br>20 Hr @ 27 °C [Ah] | Dimensions in mm   |                   |                    | Filled Battery Weight (Kg)<br>[±3 %] |
|-----------------|--------------------------------------|--------------------|-------------------|--------------------|--------------------------------------|
|                 |                                      | Length<br>[± 3 mm] | Width<br>[± 3 mm] | Height<br>[± 3 mm] |                                      |
| 12              | 150                                  | 505                | 190               | 410                | 54.50                                |



### Electrical Parameters & Charging Profile

| Battery Specified Capacity Test @ 27°C |             |            |               |            |            |
|----------------------------------------|-------------|------------|---------------|------------|------------|
| C20 @10.5 V                            | C10 @10.5 V | C7 @10.5 V | C5 @10.5 V    | C3 @10.5 V | C1 @10.5 V |
| 150                                    | 135         | 124        | 112           | 97         | 68         |
| Ah & Wh Efficiency                     |             |            |               |            |            |
| Ah Efficiency                          |             | >90%       | Wh Efficiency |            | >75%       |

EM200 (12V 200 Ah @ C20 )

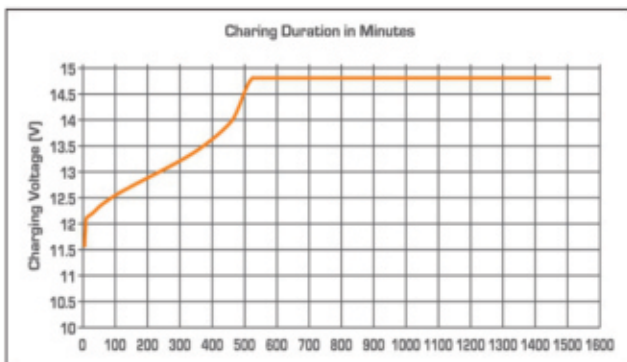
### Technical Specifications

| Nominal Voltage | Rated Capacity<br>20 Hr @ 27 °C (Ah) | Dimensions in mm   |                   |                    | Filled Battery<br>Weight (Kg)<br>(±3 %) |
|-----------------|--------------------------------------|--------------------|-------------------|--------------------|-----------------------------------------|
|                 |                                      | Length<br>(± 3 mm) | Width<br>(± 3 mm) | Height<br>(± 3 mm) |                                         |
| 12              | 150                                  | 505                | 190               | 410                | 62.5                                    |

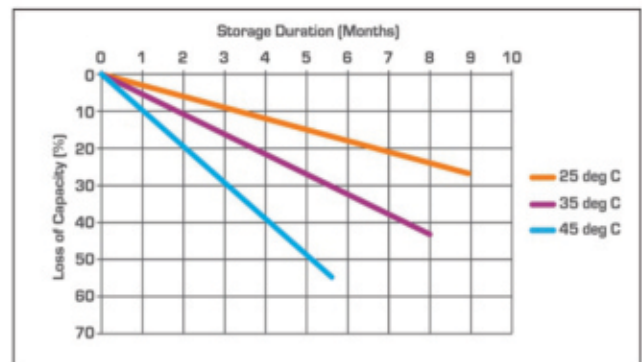
### Electrical Parameters & Charging Profile

| Battery Specified Capacity Test @ 27°C |             |            |               |            |            |
|----------------------------------------|-------------|------------|---------------|------------|------------|
| C20 @10.5 V                            | C10 @10.5 V | C7 @10.5 V | C5 @10.5 V    | C3 @10.5 V | C1 @10.5 V |
| 200                                    | 180         | 166        | 150           | 129        | 90         |
| Ah & Wh Efficiency                     |             |            |               |            |            |
| Ah Efficiency                          |             | >90%       | Wh Efficiency |            | >75%       |

### Charging Profile



### Self Discharge Characteristics @ Different Temperature





## AUTOMOTIVE BATTERY

We at Decor making high quality automotive battery using CaPb+ American technology with advanced Calcium Lead Silver Alloy, Our MF Series keep consistent with JIS and DIN Standards with super cranking power which ensures dependable start in cold weather, excellent corrosion-resistance performance in high temperature condition and great vibration resistance.



## FEATURES

- Longer Shelf life & Zero Maintenance
- Designed with a special Vibration proof element, Keeping the battery at top performance even on harsh road conditions.
- Special grid alloy to maximize corrosion resistance, increase cycle life, reduce water consumption and battery durability
- Envelop separators, that are designed to help eliminate shorting and "Corrode through" to improve reliability and battery life
- Special ribbed separators slots provide high cranking power, and the unique grid design assures maximum conductivity.
- Consistent Performance with no loss in capacity.



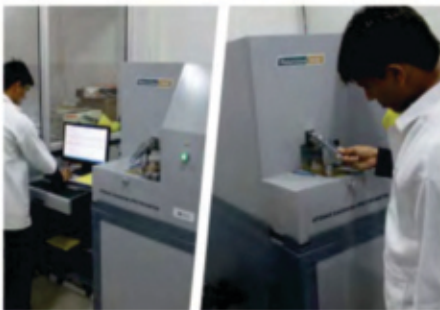
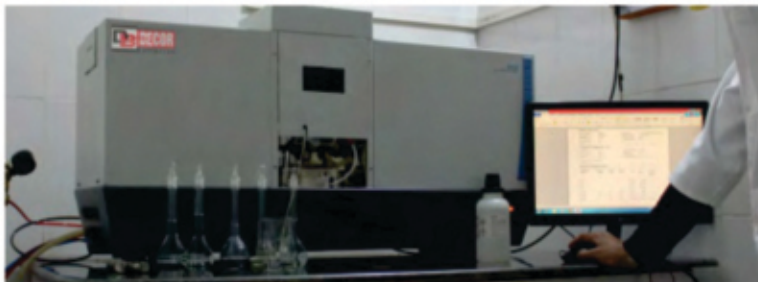
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## MODEL RANGE

| Automotive (SMF) Battery Range |          |                |     |         |                    |                       |                     |
|--------------------------------|----------|----------------|-----|---------|--------------------|-----------------------|---------------------|
| Model                          | Capacity | Dimension (mm) |     |         | CCA (ambient)      | Reserve Capacity (RC) | Filled Weight, (Kg) |
|                                | AH @C20  | L              | W   | H (SMF) | Standard (Speed X) | Standard (Speed X)    | Standard (Speed X)  |
| JIS Battery Range              |          |                |     |         |                    |                       |                     |
| 44B20R/L                       | 35       | 197            | 129 | 222     | 335                | 41                    | 9.2                 |
| 50B24R/L                       | 40       | 238            | 129 | 222     | 350                | 44                    | 10.8                |
| 55B24R/L                       | 45       | 238            | 129 | 222     | 440                | 51                    | 11.5                |
| 65D23/L                        | 60       | 231            | 173 | 226     | 550                | 73                    | 14.6                |
| 85D23/L                        | 68       | 231            | 173 | 226     | 550                | 73                    | 15.4                |
| 55D26R/L                       | 50       | 259            | 173 | 226     | 440                | 56                    | 14.2                |
| 65D26R/L                       | 60       | 259            | 173 | 226     | 530                | 73                    | 15.6                |
| 85D26R/L                       | 70       | 259            | 173 | 226     | 600                | 78                    | 17                  |
| 85D31R/L                       | 70       | 306            | 173 | 226     | 635                | 80                    | 18.6                |
| 105D31R/L                      | 80       | 306            | 173 | 226     | 750                | 109                   | 19.9                |
| 115D31R/L                      | 90       | 306            | 173 | 226     | 775                | 135                   | 20.0                |
| 115E41R/L                      | 100      | 410            | 173 | 233     | 700                | 129                   | 25.9                |
| 135F51R/L                      | 120      | 506            | 182 | 248     | 850                | 155                   | 32.9                |
| 165G51R/L                      | 150      | 506            | 221 | 246     | 1000               | 197                   | 38.0                |
| 190G51R/L                      | 170      | 506            | 221 | 246     | 1300               | 336                   | 42.7                |
| 195H52R/L                      | 180      | 518            | 274 | 248     | 1100               | 256                   | 47.0                |
| 210H52R/L                      | 200      | 518            | 274 | 248     | 1200               | 286                   | 48.0                |
| DIN Battery Range              |          |                |     |         |                    |                       |                     |
| DIN44                          | 44       | 207            | 175 | 190/175 | 390/390            | 52/52                 | 11.3                |
| DIN50                          | 50       | 207            | 175 | 190     | 420                | 56                    | 11.7                |
| DIN55                          | 55       | 242            | 175 | 190     | 480                | 67                    | 14.0                |
| DIN60                          | 60       | 242            | 175 | 190     | 540                | 73                    | 14.3                |
| DIN66                          | 66       | 278            | 175 | 190/175 | 580/550            | 84/72                 | 16.2                |
| DIN74                          | 74       | 278            | 175 | 190     | 680                | 100                   | 17.6                |
| DIN80                          | 80       | 315            | 175 | 190     | 700                | 107                   | 19.3                |
| DIN88                          | 88       | 353            | 175 | 190     | 800                | 117                   | 20.6                |
| DIN100                         | 100      | 353            | 175 | 190     | 850                | 135                   | 21.7                |
| EFB(START- STOP) Battery Range |          |                |     |         |                    |                       |                     |
| 50B20L                         | 40       | 197            | 129 | 222     | 450                | 67                    | 12.0                |
| 65B24L                         | 50       | 238            | 129 | 222     | 550                | 84                    | 14.6                |
| 95D23L                         | 60       | 231            | 173 | 226     | 700                | 110                   | 17.7                |
| 105D26L                        | 70       | 259            | 173 | 226     | 720                | 120                   | 18.9                |

## MANUFACTURING



## NOTE

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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