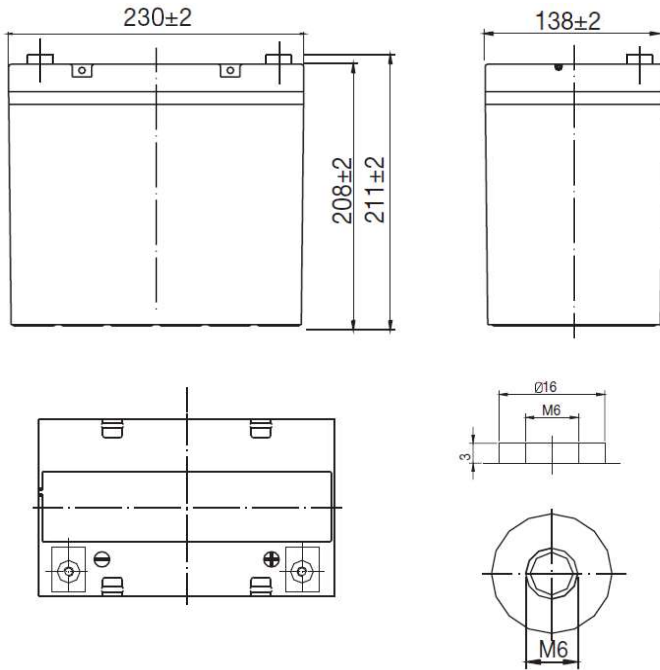


# SUNLIGHT AccuForce 12V-55Ah

AGM VRLA Battery

## Applications

- Uninterruptible Power Supplies (UPS)
- Electric Power Systems (EPS)
- Emergency backup power supplies
- Electronic apparatus and equipment
- Communication power supplies
- DC power supplies
- Auto control system



## Specifications

|   |  |               |
|---|--|---------------|
| Nominal Voltage                           | 12 V   |               |
| Number of cells                           | 6  |               |
| Design Floating Life (20°C)               | 10 years   |               |
| Dimensions                                | Length   | 230 mm        |
|   | Width  | 138 mm        |
|   | Height   | 208 mm        |
|   | Total Height   | 211 mm        |
| Weight                                    |  | 16.1 kg       |
|   |  |               |
| Nominal Capacity (25°C)                   | 20 hours rate (1.80)   | 58.2 Ah       |
|   | 10 hours rate (1.80)   | 55.0 Ah       |
|   | 5 hours rate (1.75)  | 48.3 Ah       |
|   | 1 hour rate (1.65)   | 34.6 Ah       |
| Internal Resistance (fully charged, 25°C) | 8.2 mOhms  |               |
| Self Discharge                            | approx. 3% per month at 25°C                                     |               |
| Nominal Operating Temperature             | 25°C   |               |
| Operating Temperature range               | Discharge  | -15°C to 45°C |
|   | Charge   | 0°C to 40°C   |
|   | Storage  | -15°C to 40°C |
| Float Charging Voltage                    | 2.27 to 2.30 V/cell at 25°C<br>Temperature compensation -18mV/°C |               |
| Maximum charging current                  | 13.75 A  |               |
| Maximum discharge current (25°C)          | 480 A (5 sec.)   |               |
| Short Circuit Current                     | 650 A  |               |

## Performance Data

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

| End Voltage (V/cell) | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|----------------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.60 V               | 204  | 119   | 93.5  | 78.8  | 56.7  | 42.4  | 35.1 | 20.5 | 14.5 | 11.9 | 9.91 | 7.95 | 6.88 | 5.83 | 3.05 |
| 1.65 V               | 196  | 115   | 91.3  | 76.2  | 55.5  | 41.7  | 34.6 | 20.3 | 14.4 | 11.8 | 9.82 | 7.90 | 6.81 | 5.74 | 3.04 |
| 1.70 V               | 188  | 110   | 87.9  | 73.3  | 53.9  | 39.3  | 33.7 | 20.1 | 14.3 | 11.8 | 9.74 | 7.82 | 6.71 | 5.70 | 3.03 |
| 1.75 V               | 181  | 107   | 85.3  | 70.8  | 52.5  | 38.4  | 32.7 | 19.8 | 14.3 | 11.7 | 9.66 | 7.80 | 6.63 | 5.60 | 3.02 |
| 1.80 V               | 170  | 100   | 81.4  | 67.0  | 50.6  | 36.5  | 31.7 | 19.3 | 13.8 | 11.3 | 9.37 | 7.54 | 6.51 | 5.50 | 2.91 |

### Discharge Constant Power at 25°C (Watts/Cell)

| End Voltage (V/cell) | 5min | 10min | 15min | 20min | 30min | 45min | 1h   | 2h   | 3h   | 4h   | 5h   | 6h   | 8h   | 10h  | 20h  |
|----------------------|------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.60 V               | 371  | 214   | 171   | 146   | 106.4 | 79.2  | 66.5 | 39.4 | 27.9 | 22.8 | 19.4 | 17.5 | 13.7 | 11.6 | 6.06 |
| 1.65 V               | 357  | 208   | 167   | 144   | 104.4 | 78.0  | 65.4 | 39.2 | 27.7 | 22.8 | 19.3 | 17.4 | 13.6 | 11.6 | 6.04 |
| 1.70 V               | 341  | 199   | 161   | 138   | 101.1 | 75.1  | 63.7 | 38.8 | 27.6 | 22.7 | 19.2 | 17.1 | 13.4 | 11.5 | 6.03 |
| 1.75 V               | 329  | 191   | 155   | 134   | 98.7  | 73.3  | 62.5 | 38.2 | 27.4 | 22.5 | 19.1 | 16.7 | 13.2 | 11.5 | 5.99 |
| 1.80 V               | 310  | 183   | 149   | 127   | 95.0  | 69.6  | 60.6 | 37.2 | 26.6 | 21.8 | 18.5 | 16.3 | 13.0 | 11.3 | 5.96 |

Note: The above characteristics data can be obtained within three charge/discharge cycles.

## SYSTEMS SUNLIGHT S.A.

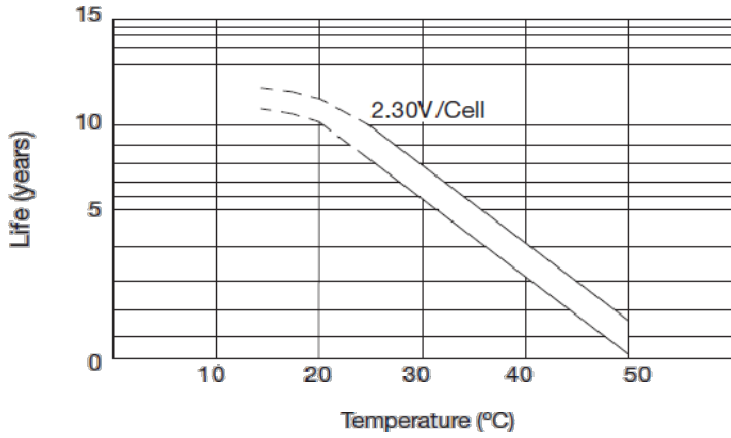
Headquarters 8, Thivaidos & Sfiggos Street | 145 64 Kifissia | Greece  
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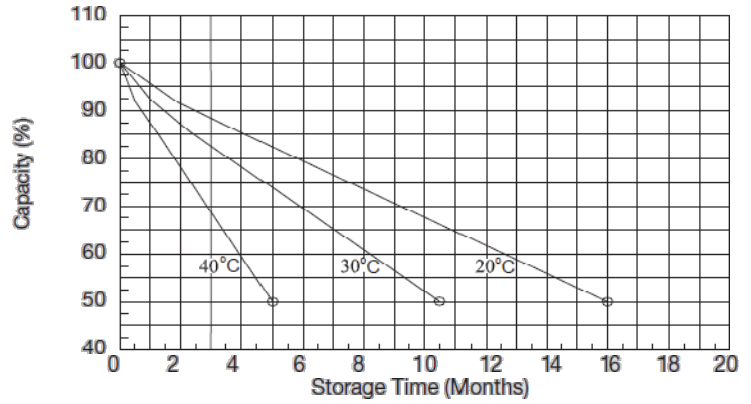
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AGM VRLA Battery

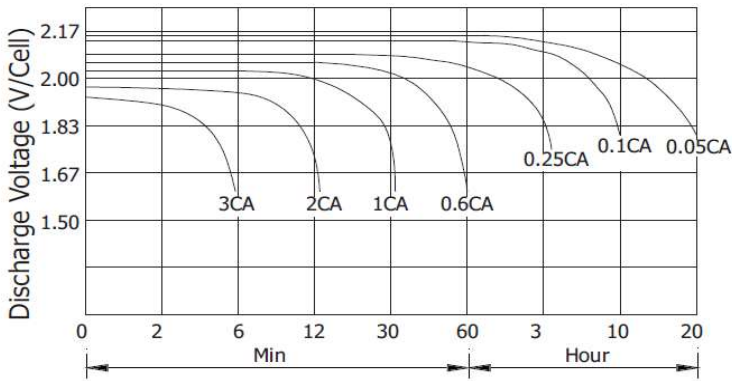
## Temperature Effects on Float Life



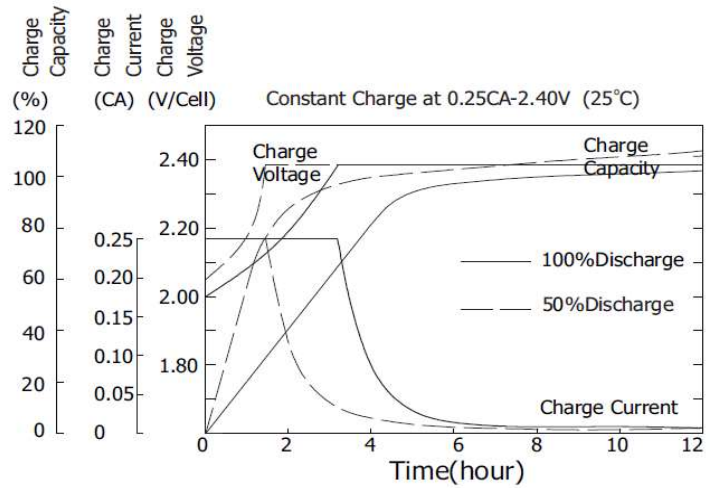
## Self Discharge Characteristics



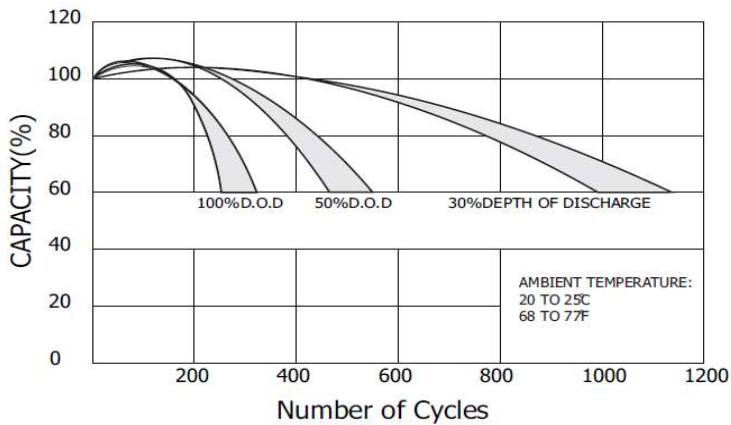
## Discharge Characteristics (25°C)



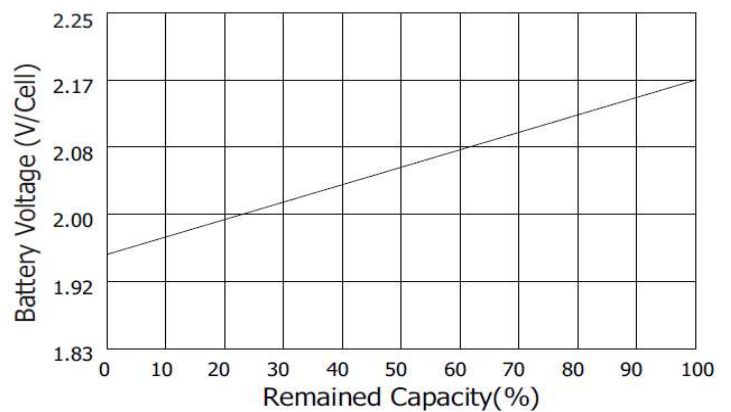
## Charging Characteristics (25°C)



## Cycle Service Life in Relation to Depth of Discharge



## Relationship Between OCV and Residual Capacity (25°C)



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