

# SG SERIES

## Solar Gel Deep Cycle

NEWMAX Solar Gel(SG Series) batteries are true maintenance-free sealed batteries engineered specifically to satisfy the need for frequent deep cycles from photovoltaic (PV) and renewable energy storage applications. We are confident that our technology-intensive, long-lasting, and environment friendly SG Series batteries will provide stability and efficiency for your everyday renewable energy needs.



### MaxPress™ Grid Technology.

Patent pending grid compressing technology which increases the density of the lead grain of the grids. The grain density is typically 400% greater than that of the conventional casting method. This up-to-date grid technology enables our batteries to survive even the toughest deep discharge and PSoC applications.



### ThixoPure™ GEL Technology

Application of refined pure thixotropic colloidal silica GEL technology to battery electrolyte has greatly increased the cycle life by both preventing plate stratification and providing extra temperature protection against heat and cold. We are the first Korean company to successfully commercialize the GEL technology in the VRLA battery industry.



### FlexSealing™ Anti Explosion Filter

Patent pending proprietary cap filtering and sealing technology. Battery cell caps are sealed more effectively than ever before.



### ActiveCarbon™

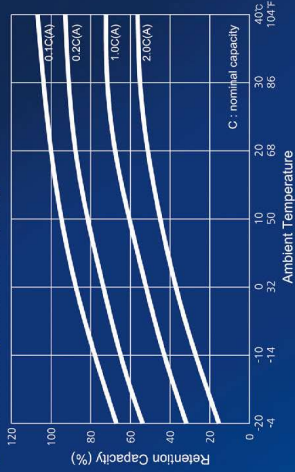
In every Newmax battery, proprietary micro carbon additive is used in the active material for both positive and negative plates to enhance charge acceptance and cycle endurance. ActiveCarbon™ works to strengthen charge pathways to improve performance consistency and enhance performance at partial state of charge (PSoC) environment.



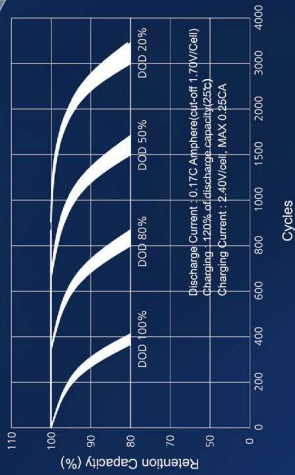
### Fahreinheit-Schutz™ Heat Protection Case

Specially formulated heat and flame resistant polypropylene case material is used to effectively block ambient heat thus preventing heat related malfunctions such as thermal runaway. This proprietary high rigidity case material has heat deflection rating of 140°C and complies to RoHS Compliant EU Directive 2002/95/EC. Additional UL 94-V0 protection option also available.

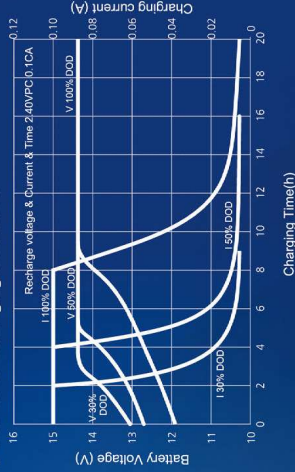
### Effect of temperature on capacity



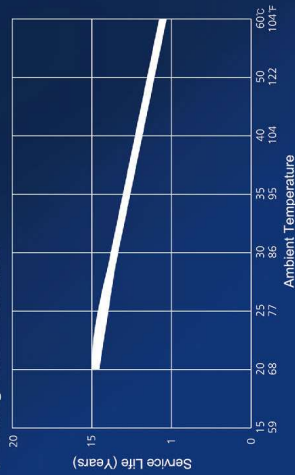
### Cycle life characteristic



### DOD % vs Recharging time curve



### Floating life characteristics



## 12 Voltage SG Series Battery Specifications

| Battery Type | Nominal Capacity (V) | Dimension        |     |          |     |                |            | Terminal type |             |             |      |      |       |    |   |
|--------------|----------------------|------------------|-----|----------|-----|----------------|------------|---------------|-------------|-------------|------|------|-------|----|---|
|              |                      | Nominal Capacity |     | T.Height |     | Approx. Weight |            |               |             |             |      |      |       |    |   |
|              |                      | 20H              | 10H | 5H       | 1H  |                | Width (mm) |               | Height (mm) | Weight (kg) |      |      |       |    |   |
| SG 800H      | 12                   | 80               | 76  | 70       | 53  | 368            | 14.49      | 172           | 210         | 8.27        | 219  | 8.62 | 59.4  | 27 | N |
| SG 1000H     | 12                   | 100              | 95  | 87       | 66  | 368            | 14.49      | 172           | 210         | 8.27        | 219  | 8.62 | 66    | 30 | N |
| SG 1200H     | 12                   | 120              | 114 | 104      | 79  | 368            | 14.49      | 172           | 210         | 8.27        | 219  | 8.62 | 72.6  | 33 | N |
| SG 1500H     | 12                   | 150              | 143 | 131      | 99  | 522            | 20.55      | 240           | 9.45        | 215         | 8.46 | 221  | 103.4 | 45 | N |
| SG 2000H     | 12                   | 200              | 190 | 174      | 132 | 522            | 20.55      | 240           | 9.45        | 215         | 8.46 | 221  | 125.4 | 57 | N |
| SG 2000H     | 12                   | 220              | 209 | 191      | 145 | 522            | 20.55      | 240           | 9.45        | 215         | 8.46 | 221  | 129.8 | 59 | N |