



## Features and Benefits

- Capacity range 11-1350Ah
- Single one piece container construction
- Ni-Cd pocket plate design
- Long storage and shelf life
- Wide operating temperature
- Low risk of terminal degradation
- Translucent plastic case for visible electrolyte level monitoring
- Proven 20 plus year service life

# Battery Range Summary

The pocket plate design, combined with the Nickel-cadmium (NiCd) chemistry and valve regulated technology, places the PowerSafe<sup>®</sup> VGM in the lead with low maintenance batteries. The Ni-Cd chemistry provides exceptionally long life at extreme temperatures while the inherent extremely low maintenance feature is enhanced by the valve regulated design. Qualities which unquestionably make the Ni-Cd series of batteries an ideal choice for mixed load applications.

The robust design provides excellent resistance against electrical and mechanical stress, low risk of terminal degradation and a proven 20 plus year life. This combination along with proven use in service make the PowerSafe<sup>®</sup> VGM battery the right choice for industrial applications, proven reliability and the highest safety integrity. The PowerSafe<sup>®</sup> VGM battery series covers discharges of 30 to 120 minutes.

## Construction

- Robust construction means low risk of terminal degradation
- Plate lugs are connected to post by bolting or welding
- Diluted potassium hydroxide electrolyte
- Felt separators insulate plates and improve recombination rates
- Dual post seal design minimizes carbon formation
- Single one piece container construction
- Flame arresting low Pressure Relief Valve (PRV)

## Installation and Operation

- Extremely low watering requirements over normal service lifetime
- Low maintenance technology with recombination rates up to 90%
- Cells can be stored for long durations without damage
- Translucent case allows for electrolyte level verification
- Proven long service life with 20 plus years in stationary cycling operations
- Operating temperature: -22°F (-30°C) to 122°F (50°C)  
Recommended temperature: 32°F (0°C) to 104°F (40°C)

## Standards

- Conforms to IEC 62259
- The management systems governing the manufacture of this product are ISO 9001 and ISO 14001 certified

## General Specifications

| Battery Type | Nominal Ah Capacity* | Nominal Dimensions |     |       |     |        |     | Typical Weight Unpacked |      |
|--------------|----------------------|--------------------|-----|-------|-----|--------|-----|-------------------------|------|
|              |                      | Length             |     | Width |     | Height |     | lbs                     | kg   |
|              |                      | in                 | mm  | in    | mm  | in     | mm  |                         |      |
| VGM 11       | 11                   | 1.8                | 46  | 3.3   | 85  | 6.6    | 167 | 2.3                     | 1.0  |
| VGM 18       | 18                   | 1.8                | 46  | 3.3   | 85  | 9.3    | 237 | 3.3                     | 1.5  |
| VGM 24       | 24                   | 1.8                | 46  | 3.3   | 85  | 9.3    | 237 | 3.5                     | 1.6  |
| VGM 30       | 30                   | 1.8                | 46  | 3.3   | 85  | 9.3    | 237 | 3.8                     | 1.7  |
| VGM 40       | 40                   | 3.3                | 85  | 3.3   | 85  | 9.3    | 237 | 5.9                     | 2.7  |
| VGM 48       | 48                   | 3.3                | 85  | 3.3   | 85  | 9.3    | 237 | 6.2                     | 2.8  |
| VGM 55       | 55                   | 3.3                | 85  | 3.3   | 85  | 9.3    | 237 | 6.5                     | 2.9  |
| VGM 65       | 65                   | 2.1                | 53  | 5.3   | 134 | 14.3   | 364 | 10.7                    | 4.9  |
| VGM 75       | 75                   | 2.1                | 53  | 5.3   | 134 | 14.3   | 364 | 11.0                    | 5.0  |
| VGM 90       | 90                   | 2.7                | 69  | 5.3   | 134 | 14.3   | 364 | 13.2                    | 6.0  |
| VGM 110      | 110                  | 2.7                | 69  | 5.3   | 134 | 14.3   | 364 | 13.9                    | 6.3  |
| VGM 125      | 125                  | 2.8                | 70  | 6.5   | 164 | 14.3   | 364 | 16.9                    | 7.7  |
| VGM 140      | 140                  | 2.8                | 70  | 6.5   | 164 | 14.3   | 364 | 17.3                    | 7.8  |
| VGM 160      | 160                  | 4.3                | 108 | 6.5   | 164 | 14.3   | 364 | 22.9                    | 10.4 |
| VGM 185      | 185                  | 4.3                | 108 | 6.5   | 164 | 14.3   | 364 | 23.8                    | 10.8 |
| VGM 205      | 205                  | 4.3                | 108 | 6.5   | 164 | 14.3   | 364 | 24.4                    | 11.1 |
| VGM 225      | 225                  | 4.3                | 108 | 6.5   | 164 | 14.3   | 364 | 25.6                    | 11.6 |
| VGM 250      | 250                  | 4.3                | 108 | 6.5   | 164 | 14.3   | 364 | 26.9                    | 12.2 |
| VGM 270      | 270                  | 6.5                | 164 | 6.2   | 158 | 14.3   | 364 | 34.8                    | 15.8 |
| VGM 300      | 300                  | 6.5                | 164 | 6.2   | 158 | 14.3   | 364 | 36.4                    | 16.5 |
| VGM 320      | 320                  | 6.5                | 164 | 6.2   | 158 | 14.3   | 364 | 37.5                    | 17.0 |
| VGM 340      | 340                  | 6.5                | 164 | 6.2   | 158 | 14.3   | 364 | 38.6                    | 17.5 |
| VGM 355      | 355                  | 6.5                | 164 | 6.2   | 158 | 14.3   | 364 | 39.7                    | 18.0 |
| VGM 380      | 380                  | 6.5                | 164 | 6.2   | 158 | 14.3   | 364 | 40.8                    | 18.5 |
| VGM 400      | 400                  | 6.5                | 164 | 6.2   | 158 | 14.3   | 364 | 41.7                    | 18.9 |
| VGM 450      | 450                  | 6.9                | 176 | 9.7   | 246 | 15.0   | 382 | 60.2                    | 27.3 |
| VGM 470      | 470                  | 6.9                | 176 | 9.7   | 246 | 15.0   | 382 | 61.2                    | 27.8 |
| VGM 500      | 500                  | 6.9                | 176 | 9.7   | 246 | 15.0   | 382 | 62.3                    | 28.3 |
| VGM 520      | 520                  | 6.9                | 176 | 9.7   | 246 | 15.0   | 382 | 63.6                    | 28.9 |
| VGM 550      | 550                  | 6.9                | 176 | 9.7   | 246 | 15.0   | 382 | 64.5                    | 29.3 |
| VGM 570      | 570                  | 6.9                | 176 | 9.7   | 246 | 15.0   | 382 | 65.3                    | 29.7 |
| VGM 600      | 600                  | 6.9                | 176 | 14.5  | 368 | 15.0   | 382 | 89.7                    | 40.7 |
| VGM 630      | 630                  | 6.9                | 176 | 14.5  | 368 | 15.0   | 382 | 90.6                    | 41.2 |
| VGM 675      | 675                  | 6.9                | 176 | 14.5  | 368 | 15.0   | 382 | 92.2                    | 41.9 |
| VGM 690      | 690                  | 6.9                | 176 | 14.5  | 368 | 15.0   | 382 | 93.1                    | 42.3 |
| VGM 750      | 750                  | 6.9                | 176 | 14.5  | 368 | 15.0   | 382 | 94.8                    | 43.1 |
| VGM 770      | 770                  | 6.9                | 176 | 14.5  | 368 | 15.0   | 382 | 96.4                    | 43.8 |
| VGM 800      | 800                  | 6.9                | 176 | 17.6  | 448 | 15.0   | 382 | 108.0                   | 49.1 |
| VGM 850      | 850                  | 6.9                | 176 | 17.6  | 448 | 15.0   | 382 | 113.1                   | 51.4 |
| VGM 950      | 950                  | 6.9                | 176 | 17.6  | 448 | 15.0   | 382 | 118.1                   | 53.7 |
| VGM 1000     | 1000                 | 6.9                | 176 | 17.6  | 448 | 15.0   | 382 | 126.7                   | 57.6 |
| VGM 1030     | 1030                 | 6.9                | 176 | 17.6  | 448 | 15.0   | 382 | 129.6                   | 58.9 |
| VGM 1130     | 1130                 | 6.9                | 176 | 17.6  | 448 | 15.0   | 382 | 136.2                   | 61.9 |
| VGM 1250     | 1250                 | 6.9                | 176 | 22.0  | 558 | 15.0   | 382 | 151.6                   | 68.9 |
| VGM 1350     | 1350                 | 6.9                | 176 | 22.0  | 558 | 15.0   | 382 | 154.2                   | 70.1 |

\*Nominal amp hour capacity at the 5 hour rate to 1.00 volts per cell @ 68°F (20°C)

AMER-EN-RS-PS-VGM-0524



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