



## Battery Range Summary

PowerSafe® DSG batteries have been carefully engineered to take on the demanding power needs of the utility market. The multi-cell design with individual post utilizes less floor space while allowing for integration of battery monitoring and test equipment used in routine maintenance. The 0.25" thick positive plate makes DSG batteries ideally suited for the long duration and complex duty cycle requirements inherent to today's switchgear, utility and control applications.

PowerSafe DSG series batteries employ a Slide-Lock™ post seal that allows for natural plate growth over time for maximum reliability and reduced maintenance. The innovative tongue-and-groove jar-to-cover seal provides a robust airtight seal.

Multi-cell construction requires fewer units, resulting in lower installation costs. All battery systems are rated at 100% capacity at initial discharge and offer 20-year life expectancy in float service at 77°F (25°C) ambient temperature.

### Features and Benefits

- Capacity range 295 - 1600 Ah at the 8 hour rate to 1.75vpc at 77°F (25°C)
- 100% initial capacity
- 12 multi-cell units, six 8v units and six 4v units reduces linear footprint
- Individual (or dual) terminals per cell to allow individual cell monitoring
- Plated copper terminals, single hole for 5 and 7 plate models, dual hole for remainder of models
- Thick grids for excellent long duration discharge and long life

## Construction

- 0.25" thick positive plates provide excellent long discharge rates for complex load profiles
- Separator - microporous phenolic resin with glass fiber retainers
- Standard jar material is Styrene Acrylonitrile (SAN) with flame retardant PVC cover. Optional PC flame retardant jar with flame retardant PVC cover (5-13 plate) or flame retardant PC cover (15-27 plate)
- Electrolyte - dilute sulfuric acid with specific gravity of 1.215
- Slide-Lock™ post seal design
- Flame arrestors - included for increased operational safety

## Installation and Operation

- Tin-plated copper inter-cell connections standard; lead-plated optional
- Lead-plated copper posts DSG-05 to DSG-19 - one positive and one negative post per cell; DSG-21 to DSG-27 - two positive posts and two negative posts per cell
- Optimized for long duration discharge and complex duty cycle required for switchgear application
- 20-year life expectancy in float service at 77°F (25°C)
- Operating temperature: 32°F (0°C) to 104°F (40°C)  
Recommended temperature: 68°F (20°C) to 86°F (30°C)

## Standards

- The management systems governing manufacturing of this product are ISO-9001 and ISO-14001 certified
- Optional IEEE 450 or customer specific testing available

## General Specifications

| Battery Type* | Nominal Capacity (Ah)            | Cells per Container | Nominal Dimensions |     |       |     |        |     |                                 |     | Weights - Volumes  |     |                           |     |                                        |       |      |      |
|---------------|----------------------------------|---------------------|--------------------|-----|-------|-----|--------|-----|---------------------------------|-----|--------------------|-----|---------------------------|-----|----------------------------------------|-------|------|------|
|               | 8 hr rate to 1.75Vpc @ 25°C/77°F |                     | Length**           |     | Width |     | Height |     | Height to top of terminal plate |     | Unpacked Container |     | Domestic Packed Container |     | Electrolyte Only / 1.215 S.G. per cell |       |      |      |
|               |                                  |                     | in                 | mm  | in    | mm  | in     | mm  | in                              | mm  | lbs                | kg  | lbs                       | kg  | gallon                                 | liter | lbs  | kg   |
| 4DSG-05       | 295                              | 4                   | 9.5                | 241 | 16.0  | 406 | 22.0   | 559 | 26.2                            | 665 | 267                | 121 | 276                       | 125 | 6.3                                    | 23.8  | 64.0 | 29.0 |
| 4DSG-07       | 375                              |                     |                    |     |       |     |        |     |                                 |     | 328                | 149 | 337                       | 153 | 5.8                                    | 22.0  | 59.2 | 26.8 |
| 4DSG-09       | 595                              |                     |                    |     |       |     |        |     |                                 |     | 494                | 224 | 509                       | 231 | 13.2                                   | 49.8  | 134  | 60.6 |
| 4DSG-11       | 680                              |                     |                    |     |       |     |        |     |                                 |     | 555                | 252 | 570                       | 259 | 12.2                                   | 46.0  | 124  | 56.0 |
| 4DSG-13       | 745                              |                     |                    |     |       |     |        |     |                                 |     | 617                | 280 | 632                       | 287 | 11.1                                   | 42.1  | 113  | 51.3 |
| 4DSG-15       | 885                              | 4                   | 20.2               | 513 | 16.0  | 406 | 22.7   | 576 | 30.0                            | 763 | 756                | 343 | 775                       | 352 | 11.0                                   | 41.6  | 112  | 50.7 |
| 2DSG-17       | 1053                             |                     |                    |     |       |     |        |     |                                 |     | 435                | 197 | 450                       | 204 | 6.6                                    | 25.1  | 67.5 | 30.6 |
| 2DSG-19       | 1132                             |                     |                    |     |       |     |        |     |                                 |     | 451                | 205 | 466                       | 211 | 6.0                                    | 22.5  | 60.5 | 27.4 |
| 2DSG-21       | 1373                             |                     |                    |     |       |     |        |     |                                 |     | 546                | 248 | 565                       | 256 | 10.2                                   | 38.6  | 104  | 47.0 |
| 2DSG-23       | 1449                             |                     |                    |     |       |     |        |     |                                 |     | 580                | 263 | 599                       | 272 | 9.8                                    | 37.1  | 99.5 | 45.1 |
| 2DSG-25       | 1524                             | 2                   | 16.7               | 424 | 16.0  | 406 | 22.7   | 576 | 30.1                            | 764 | 615                | 279 | 634                       | 288 | 9.4                                    | 35.5  | 95.3 | 43.2 |
| 2DSG-27       | 1600                             |                     |                    |     |       |     |        |     |                                 |     | 650                | 295 | 669                       | 303 | 9.2                                    | 34.8  | 93.4 | 42.4 |

\* Prefix number indicates cells per unit. Suffix number indicates total plates per cell.

\*\* 0.25" must be added between units for spacing purposes when calculating total battery length.

