

# ABSOLYTE<sup>®</sup> GP



## PHOTOVOLTAIC & ALTERNATIVE ENERGY

# ABSOLYTE<sup>®</sup> GP

## A WORLD LEADER IN VALVE REGULATED LEAD ACID (VRLA) BATTERY POWER FOR PHOTOVOLTAIC AND ALTERNATIVE ENERGY APPLICATIONS

- Proven Field Experience Since 1983.
- The Absolyte was developed by GNB<sup>®</sup> Industrial Power, a division of Exide Technologies, in conjunction with Sandia National Laboratories, as the first VRLA, large capacity, deep-cycle battery for photovoltaic applications.
- Patented lead-calcium-tin-silver positive grid alloy provides excellent cycle life for photovoltaic applications.
- Provides for extended partial state of charge operation and allows for deep discharge recovery.
- Wide band of temperature operation — retains more capacity in cold temperatures than traditional flooded batteries.
- Modular steel tray design provides excellent heat dissipation in high temperature applications.
- Housed in protective steel trays designed for maximum installation flexibility.
- Single cell modules are available that simplify transport to remote locations.
- Eliminates the need for periodic water additions as found in flooded cells. Periodic visual inspections, voltage readings, and connection retorquing is all that is required.
- Enhanced Post Access for maintenance and battery health assessment.
- Absolyte GP is seismic qualified to 1997 UBC/2001CBC, 2005 IEEE-693, and 2012 IBC. (See back cover for applicable configurations.)
- UL Recognized, ISO 9001:2000, NEBS Level 3.

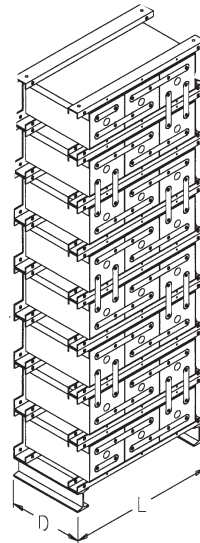
## APPLICATIONS

Absolyte GP batteries are ideal for photovoltaic and alternative energy applications including:

- Village Electrification
- Telecommunications
- Residential Power
- Railroad Signal
- Navigational Aids

## ADDED FEATURES AND BENEFITS

- Extended partial state of charge operation
- Deep discharge recovery
- Freezing tolerant
- Does not require separate battery room
- Recombination efficiency greater than 99%
- Globally recyclable design
- Single cell and stackable modules are available
- Simple cell replacement capability



## ASSEMBLY CONFIGURATIONS

### Horizontal Stack Assembly

Depth is overall, including module cover assembly. Add 102mm (4") for bottom I-beam supports to determine total height of assembled horizontal stack.

# ABSOLYTE<sup>®</sup> GP

## Absolyte GP Stackable Module Weights and Dimensions

| MODULE TYPE | VOLTS | NOM AH CAP (100 HR) | STACKING DIMENSIONS |      |        |     |       |     |                 |     | DOMESTIC PACKED WEIGHT |     | EXPORT PACKED WEIGHT |     |
|-------------|-------|---------------------|---------------------|------|--------|-----|-------|-----|-----------------|-----|------------------------|-----|----------------------|-----|
|             |       |                     | LENGTH              |      | HEIGHT |     | DEPTH |     | UNPACKED WEIGHT |     | LBS                    | KG  | LBS                  | KG  |
|             |       |                     | IN                  | MM   | IN     | MM  | IN    | MM  | LBS             | KG  |                        |     |                      |     |
| <b>50G</b>  |       |                     |                     |      |        |     |       |     |                 |     |                        |     |                      |     |
| 6-50G05     | 12    | 140                 | 17.19               | 437  | 8.53   | 217 | 16.22 | 412 | 157             | 71  | 176                    | 80  | 228                  | 104 |
| 6-50G07     | 12    | 210                 | 21.69               | 551  | 8.53   | 217 | 16.22 | 412 | 209             | 95  | 228                    | 104 | 280                  | 127 |
| 6-50G09     | 12    | 290                 | 26.19               | 665  | 8.53   | 217 | 16.22 | 412 | 252             | 114 | 271                    | 123 | 323                  | 147 |
| 6-50G13     | 12    | 430                 | 35.19               | 894  | 8.53   | 217 | 16.22 | 412 | 356             | 162 | 381                    | 173 | 433                  | 197 |
| <b>90G</b>  |       |                     |                     |      |        |     |       |     |                 |     |                        |     |                      |     |
| 6-90G07     | 12    | 360                 | 21.69               | 551  | 8.53   | 217 | 23.56 | 599 | 316             | 143 | 335                    | 152 | 413                  | 187 |
| 6-90G09     | 12    | 480                 | 26.19               | 665  | 8.53   | 217 | 23.56 | 599 | 396             | 180 | 415                    | 188 | 493                  | 224 |
| 6-90G11     | 12    | 600                 | 30.69               | 780  | 8.53   | 217 | 23.56 | 599 | 477             | 216 | 502                    | 228 | 581                  | 264 |
| 6-90G13     | 12    | 720                 | 35.19               | 894  | 8.53   | 217 | 23.56 | 599 | 557             | 253 | 582                    | 264 | 661                  | 300 |
| 6-90G15     | 12    | 840                 | 39.69               | 1008 | 8.59   | 218 | 23.56 | 599 | 637             | 289 | 668                    | 303 | 747                  | 339 |
| <b>100</b>  |       |                     |                     |      |        |     |       |     |                 |     |                        |     |                      |     |
| 3-100G13    | 6     | 790                 | 19.93               | 506  | 8.53   | 217 | 26.38 | 670 | 328             | 149 | 356                    | 162 | 436                  | 198 |
| 3-100G15    | 6     | 920                 | 22.18               | 563  | 8.59   | 218 | 26.38 | 670 | 374             | 170 | 408                    | 185 | 489                  | 222 |
| 3-100G17    | 6     | 1000                | 24.50               | 622  | 8.59   | 218 | 26.38 | 670 | 424             | 192 | 446                    | 202 | 528                  | 240 |
| 3-100G19    | 6     | 1100                | 26.75               | 679  | 8.59   | 218 | 26.38 | 670 | 470             | 213 | 491                    | 223 | 574                  | 260 |
| 3-100G21    | 6     | 1300                | 29.00               | 737  | 8.59   | 218 | 26.38 | 670 | 515             | 234 | 539                    | 245 | 623                  | 283 |
| 3-100G23    | 6     | 1400                | 31.25               | 794  | 8.59   | 218 | 26.38 | 670 | 561             | 255 | 589                    | 267 | 674                  | 306 |
| 3-100G25    | 6     | 1500                | 33.50               | 851  | 8.59   | 218 | 26.38 | 670 | 608             | 276 | 637                    | 289 | 723                  | 328 |
| 3-100G27    | 6     | 1700                | 35.75               | 908  | 8.59   | 218 | 26.38 | 670 | 653             | 296 | 684                    | 310 | 772                  | 350 |
| 3-100G29    | 6     | 1800                | 38.00               | 965  | 8.59   | 218 | 26.38 | 670 | 704             | 319 | 736                    | 334 | 824                  | 374 |
| 3-100G31    | 6     | 1900                | 40.25               | 1022 | 8.59   | 218 | 26.38 | 670 | 750             | 340 | 783                    | 355 | 873                  | 396 |
| 3-100G33    | 6     | 2100                | 42.50               | 1080 | 8.59   | 218 | 26.38 | 670 | 795             | 361 | 829                    | 376 | 920                  | 417 |
| 1-100G39    | 2     | 2370                | 19.93               | 506  | 8.53   | 217 | 26.38 | 670 | 328             | 149 | 356                    | 162 | 436                  | 198 |
| 1-100G45    | 2     | 2760                | 22.18               | 563  | 8.59   | 218 | 26.38 | 670 | 374             | 170 | 408                    | 185 | 489                  | 222 |
| 1-100G51    | 2     | 3000                | 24.50               | 622  | 8.59   | 218 | 26.38 | 670 | 424             | 192 | 446                    | 202 | 528                  | 240 |
| 1-100G57    | 2     | 3300                | 26.75               | 679  | 8.59   | 218 | 26.38 | 670 | 470             | 213 | 491                    | 223 | 574                  | 260 |
| 1-100G63    | 2     | 3900                | 29.00               | 737  | 8.59   | 218 | 26.38 | 670 | 515             | 234 | 539                    | 245 | 623                  | 283 |
| 1-100G69    | 2     | 4200                | 31.25               | 794  | 8.59   | 218 | 26.38 | 670 | 561             | 255 | 589                    | 267 | 674                  | 306 |
| 1-100G75    | 2     | 4500                | 33.50               | 851  | 8.59   | 218 | 26.38 | 670 | 608             | 276 | 637                    | 289 | 723                  | 328 |
| 1-100G81    | 2     | 5100                | 35.75               | 908  | 8.59   | 218 | 26.38 | 670 | 653             | 296 | 684                    | 310 | 772                  | 350 |
| 1-100G87    | 2     | 5400                | 38.00               | 965  | 8.59   | 218 | 26.38 | 670 | 704             | 319 | 736                    | 334 | 824                  | 374 |
| 1-100G93    | 2     | 5700                | 40.25               | 1022 | 8.59   | 218 | 26.38 | 670 | 750             | 340 | 783                    | 355 | 873                  | 396 |
| 1-100G99    | 2     | 6300                | 42.50               | 1080 | 8.59   | 218 | 26.38 | 670 | 795             | 361 | 829                    | 376 | 920                  | 417 |

\* Includes 77 mm (3") additional for Module Cover Assembly. For V-0 models, add a V suffix (example 3-100G33V).

NOTE: Design and/or specifications are subject to change without notice. If questions arise, contact your local GNB sales representative for clarification.

# ABSOLYTE® GP

## CELL SPECIFICATIONS

### 140-6300 AH @ 100 Hour Rate

**Container and Cover** — Polypropylene.

Flame retardant UL94 V-0/28% L.O.I. is optional.

**Separators** — Spun glass, microporous matrix.

**Safety Vent** — 3-10 psi opening pressure, self-resealing.

**Terminals** — Solid copper insert.

**Positive Plate** — Patented Lead-Calcium-Tin-Silver grid alloy.

**Negative Plate** — Lead-Calcium grid alloy.

**Operating Temperature** — Temperature excursions between -40°C (-40°F) to +50°C (122°F) allowed (battery performance and life will be affected).

**Cycle Life** — 1200 cycles at 80% D.O.D. [at 25°C (77°F)] when operated per the I&O Manual.

**Self Discharge** — 0.5 to 1.0% per week maximum at 25°C (77°F).

**Charge Controller Upper Voltage Settings**— at 25°C (77°F) with a maximum charge current of 5% of nominal C/100 Amp-hour rating.

2.28 ± 0.02 V.P.C. @ 0-2% D.O.D.

2.33 ± 0.02 V.P.C. @ 3-5% D.O.D.

2.38 ± 0.02 V.P.C. @ >5% D.O.D.

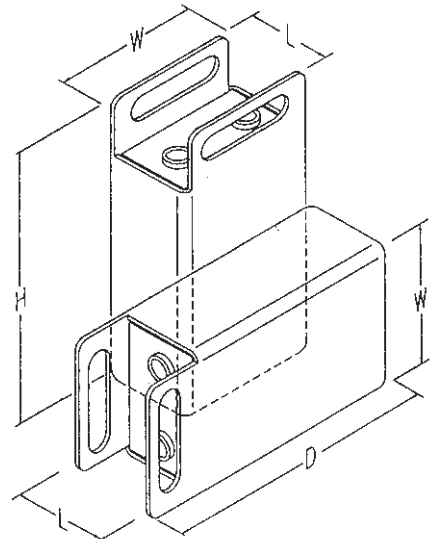
For other temperatures and charge currents, contact GNB for recommendations.

## Absolyte GP Single Cell Module Weights and Dimensions

| CELL TYPE  | NOM AH CAP (100 HR) | LENGTH |     | WIDTH |     | DEPTH OR HEIGHT |     | UNPACKED WEIGHT |    | DOMESTIC PACKED WEIGHT |    | EXPORT PACKED WEIGHT |    |
|------------|---------------------|--------|-----|-------|-----|-----------------|-----|-----------------|----|------------------------|----|----------------------|----|
|            |                     | IN     | MM  | IN    | MM  | IN              | MM  | LB              | KG | LB                     | KG | LB                   | KG |
| <b>50G</b> |                     |        |     |       |     |                 |     |                 |    |                        |    |                      |    |
| 50G05      | 140                 | 3.80   | 97  | 6.49  | 165 | 16.00           | 406 | 32              | 15 | 35                     | 16 | 44                   | 20 |
| 50G07      | 210                 | 3.80   | 97  | 6.49  | 165 | 16.00           | 406 | 39              | 18 | 41                     | 19 | 51                   | 23 |
| 50G11      | 370                 | 4.55   | 116 | 6.49  | 165 | 16.00           | 406 | 50              | 23 | 53                     | 24 | 61                   | 28 |
| 50G13      | 430                 | 5.30   | 135 | 6.49  | 165 | 16.00           | 406 | 58              | 26 | 61                     | 28 | 69                   | 31 |
| 50G15      | 510                 | 6.05   | 154 | 6.55  | 166 | 16.00           | 406 | 66              | 30 | 69                     | 31 | 77                   | 35 |
| 50G19      | 660                 | 7.67   | 195 | 6.67  | 169 | 16.00           | 406 | 91              | 41 | 95                     | 43 | 112                  | 51 |
| 50G27      | 950                 | 10.67  | 271 | 6.67  | 169 | 16.00           | 406 | 124             | 56 | 130                    | 59 | 147                  | 67 |



NOTE: Design and/or specifications subject to change without notice. If questions arise, contact your local GNB sales representative for clarification.



# ABSOLYTE® GP

Absolyte GP Performance Characteristics — Constant Current  
Amperes to 1.75 Volts Per Cell @ 25°C (77°F)

| CELL TYPE   | HOURS |      |     |     |     |     |     |     |     |     |
|-------------|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|
|             | 120   | 100  | 72  | 48  | 36  | 24  | 20  | 12  | 10  | 8   |
| <b>50G</b>  |       |      |     |     |     |     |     |     |     |     |
| 50G05       | 1.2   | 1.4  | 1.9 | 2.8 | 3.6 | 5.1 | 6   | 9.3 | 11  | 13  |
| 50G07       | 1.8   | 2.1  | 2.9 | 4.2 | 5.5 | 7.7 | 9.1 | 14  | 16  | 19  |
| 50G09       | 2.4   | 2.9  | 3.9 | 5.6 | 7.3 | 10  | 12  | 18  | 22  | 26  |
| 50G11       | 3.1   | 3.7  | 5.0 | 7.1 | 9.2 | 13  | 15  | 23  | 27  | 33  |
| 50G13       | 3.7   | 4.3  | 5.9 | 8.5 | 11  | 15  | 18  | 28  | 33  | 39  |
| 50G15       | 4.3   | 5.1  | 6.9 | 10  | 13  | 18  | 21  | 33  | 38  | 46  |
| 50G19       | 5.6   | 6.6  | 8.9 | 13  | 17  | 23  | 27  | 42  | 49  | 59  |
| 50G27       | 8.0   | 9.5  | 13  | 19  | 24  | 34  | 39  | 61  | 71  | 85  |
| <b>90G</b>  |       |      |     |     |     |     |     |     |     |     |
| 90G07       | 3.0   | 3.6  | 4.9 | 7.0 | 9.1 | 12  | 15  | 23  | 27  | 32  |
| 90G09       | 4.0   | 4.8  | 6.5 | 9.4 | 12  | 17  | 20  | 31  | 36  | 43  |
| 90G11       | 5.0   | 6.0  | 8.1 | 11  | 15  | 21  | 25  | 39  | 46  | 54  |
| 90G13       | 6.1   | 7.2  | 9.8 | 14  | 18  | 25  | 30  | 47  | 55  | 65  |
| 90G15       | 7.1   | 8.4  | 11  | 16  | 21  | 30  | 35  | 55  | 64  | 76  |
| <b>100G</b> |       |      |     |     |     |     |     |     |     |     |
| 100G13      | 6.7   | 7.9  | 10  | 15  | 20  | 29  | 34  | 54  | 62  | 75  |
| 100G15      | 7.8   | 9.2  | 12  | 18  | 23  | 33  | 40  | 63  | 73  | 87  |
| 100G17      | 8.9   | 10.6 | 14  | 20  | 26  | 38  | 45  | 72  | 83  | 100 |
| 100G19      | 10.0  | 11.9 | 16  | 23  | 30  | 43  | 51  | 81  | 94  | 112 |
| 100G21      | 11.2  | 13.2 | 17  | 25  | 33  | 48  | 57  | 90  | 104 | 125 |
| 100G23      | 12.3  | 14.5 | 19  | 28  | 36  | 53  | 63  | 99  | 115 | 137 |
| 100G25      | 13.4  | 15.9 | 21  | 31  | 40  | 58  | 68  | 108 | 125 | 150 |
| 100G27      | 14.5  | 17.2 | 23  | 33  | 43  | 62  | 74  | 117 | 135 | 162 |
| 100G29      | 15.7  | 18.5 | 25  | 36  | 46  | 67  | 80  | 127 | 146 | 175 |
| 100G31      | 16.8  | 19.9 | 26  | 38  | 50  | 72  | 85  | 136 | 156 | 187 |
| 100G33      | 17.9  | 21.2 | 28  | 41  | 53  | 77  | 91  | 145 | 167 | 200 |
| 100G39      | 20.1  | 23.7 | 30  | 45  | 60  | 87  | 102 | 162 | 186 | 225 |
| 100G45      | 23.4  | 27.6 | 36  | 54  | 69  | 99  | 120 | 189 | 219 | 261 |
| 100G51      | 26.7  | 31.8 | 42  | 60  | 78  | 114 | 135 | 216 | 249 | 300 |
| 100G57      | 30.0  | 35.7 | 48  | 69  | 90  | 129 | 153 | 243 | 282 | 336 |
| 100G63      | 33.6  | 39.6 | 51  | 75  | 99  | 144 | 171 | 270 | 312 | 375 |
| 100G69      | 36.9  | 43.5 | 57  | 84  | 108 | 159 | 189 | 297 | 345 | 411 |
| 100G75      | 40.2  | 47.7 | 63  | 93  | 120 | 174 | 204 | 324 | 375 | 450 |
| 100G81      | 43.5  | 51.6 | 69  | 99  | 129 | 186 | 222 | 351 | 405 | 486 |
| 100G87      | 47.1  | 55.5 | 75  | 108 | 138 | 201 | 240 | 381 | 438 | 525 |
| 100G93      | 50.4  | 59.7 | 78  | 114 | 150 | 216 | 255 | 408 | 468 | 561 |
| 100G99      | 53.7  | 63.6 | 84  | 123 | 159 | 231 | 273 | 435 | 501 | 600 |

For additional ratings, refer to section 26.10B.

# ABSOLYTE® GP

Absolyte GP Performance Characteristics — Constant Current  
Amperes to 1.80 Volts Per Cell @ 25°C (77°F)

| CELL TYPE   | HOURS |      |     |     |     |     |     |     |     |     |
|-------------|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|
|             | 120   | 100  | 72  | 48  | 36  | 24  | 20  | 12  | 10  | 8   |
| <b>50G</b>  |       |      |     |     |     |     |     |     |     |     |
| 50G05       | 1.2   | 1.4  | 1.9 | 2.8 | 3.6 | 5.1 | 6.0 | 9.2 | 10  | 12  |
| 50G07       | 1.8   | 2.1  | 2.9 | 4.2 | 5.4 | 7.7 | 9.0 | 13  | 16  | 19  |
| 50G09       | 2.4   | 2.8  | 3.9 | 5.6 | 7.2 | 10  | 12  | 18  | 21  | 25  |
| 50G11       | 3.1   | 3.6  | 4.9 | 7.0 | 9.1 | 13  | 15  | 23  | 26  | 31  |
| 50G13       | 3.6   | 4.3  | 5.8 | 8.4 | 10  | 15  | 18  | 27  | 32  | 38  |
| 50G15       | 4.3   | 5.1  | 6.8 | 10  | 13  | 18  | 21  | 32  | 37  | 44  |
| 50G19       | 5.5   | 6.5  | 8.8 | 13  | 16  | 23  | 27  | 42  | 48  | 57  |
| 50G27       | 8.0   | 9.4  | 13  | 18  | 24  | 34  | 39  | 60  | 69  | 82  |
| <b>90G</b>  |       |      |     |     |     |     |     |     |     |     |
| 90G07       | 3.0   | 3.5  | 4.8 | 6.9 | 9.0 | 12  | 14  | 23  | 27  | 32  |
| 90G09       | 4.0   | 4.7  | 6.4 | 9.3 | 12  | 17  | 19  | 31  | 36  | 43  |
| 90G11       | 5.0   | 5.9  | 8.0 | 11  | 15  | 21  | 24  | 39  | 45  | 53  |
| 90G13       | 6.0   | 7.1  | 9.7 | 13  | 18  | 25  | 29  | 46  | 54  | 64  |
| 90G15       | 7.0   | 8.3  | 11  | 16  | 21  | 29  | 34  | 54  | 63  | 75  |
| <b>100G</b> |       |      |     |     |     |     |     |     |     |     |
| 100G13      | 6.6   | 7.8  | 10  | 15  | 19  | 28  | 33  | 53  | 62  | 73  |
| 100G15      | 7.7   | 9.1  | 12  | 17  | 23  | 33  | 39  | 62  | 72  | 85  |
| 100G17      | 8.8   | 10.4 | 14  | 20  | 26  | 38  | 45  | 71  | 82  | 97  |
| 100G19      | 9.9   | 11.8 | 15  | 22  | 29  | 42  | 50  | 80  | 93  | 110 |
| 100G21      | 11.1  | 13.1 | 17  | 25  | 32  | 47  | 56  | 89  | 103 | 122 |
| 100G23      | 12.2  | 14.4 | 19  | 28  | 36  | 52  | 62  | 98  | 113 | 134 |
| 100G25      | 13.3  | 15.7 | 21  | 30  | 39  | 57  | 67  | 107 | 124 | 146 |
| 100G27      | 14.4  | 17.0 | 22  | 33  | 42  | 61  | 73  | 116 | 134 | 159 |
| 100G29      | 15.5  | 18.3 | 24  | 35  | 46  | 66  | 78  | 125 | 144 | 171 |
| 100G31      | 16.6  | 19.6 | 26  | 38  | 49  | 71  | 84  | 134 | 155 | 183 |
| 100G33      | 17.7  | 20.9 | 28  | 40  | 52  | 76  | 90  | 143 | 165 | 195 |
| 100G39      | 19.8  | 23.4 | 30  | 45  | 57  | 84  | 99  | 159 | 186 | 219 |
| 100G45      | 23.1  | 27.3 | 36  | 51  | 69  | 99  | 117 | 186 | 216 | 255 |
| 100G51      | 26.4  | 31.2 | 42  | 60  | 78  | 114 | 135 | 213 | 246 | 291 |
| 100G57      | 29.7  | 35.4 | 45  | 66  | 87  | 126 | 150 | 240 | 279 | 330 |
| 100G63      | 33.3  | 39.3 | 51  | 75  | 96  | 141 | 168 | 267 | 309 | 366 |
| 100G69      | 36.6  | 43.2 | 57  | 84  | 108 | 156 | 186 | 294 | 339 | 402 |
| 100G75      | 39.9  | 47.1 | 63  | 90  | 117 | 171 | 201 | 321 | 372 | 438 |
| 100G81      | 43.2  | 51.0 | 66  | 99  | 126 | 183 | 219 | 348 | 402 | 477 |
| 100G87      | 46.5  | 54.9 | 72  | 105 | 138 | 198 | 234 | 375 | 432 | 513 |
| 100G93      | 49.8  | 58.8 | 78  | 114 | 147 | 213 | 252 | 402 | 465 | 549 |
| 100G99      | 53.1  | 62.7 | 84  | 120 | 156 | 228 | 270 | 429 | 495 | 585 |

For additional ratings, refer to section 26.10B.

# ABSOLYTE® GP

Absolyte GP Performance Characteristics — Constant Current  
Amperes to 1.90 Volts Per Cell @ 25°C (77°F)

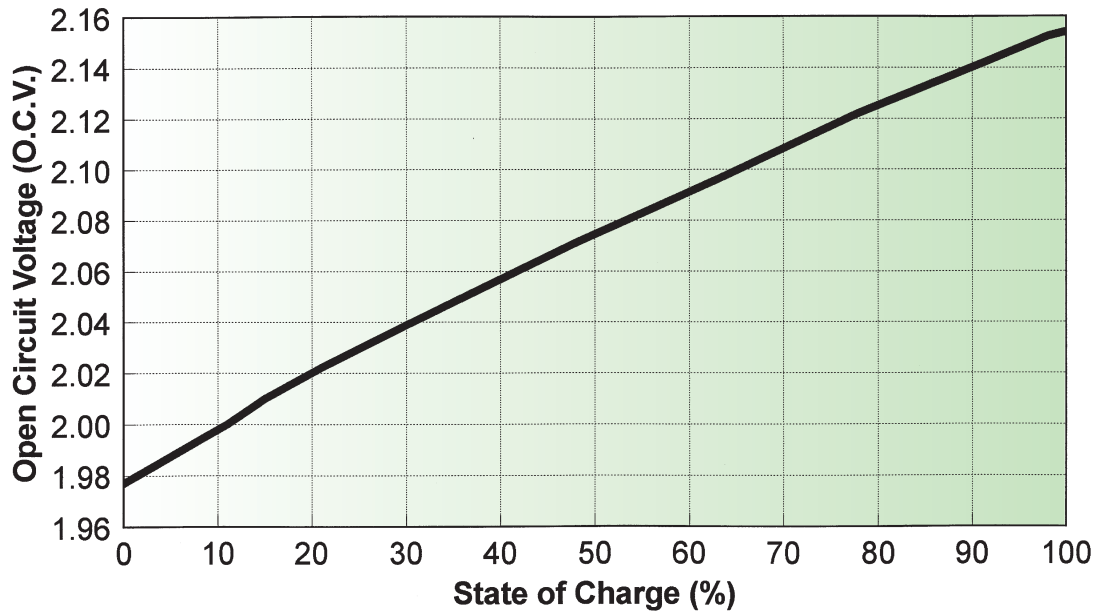
| CELL TYPE   | HOURS |      |     |     |     |     |     |     |     |     |
|-------------|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|
|             | 120   | 100  | 72  | 48  | 36  | 24  | 20  | 12  | 10  | 8   |
| <b>50G</b>  |       |      |     |     |     |     |     |     |     |     |
| 50G05       | 1.1   | 1.3  | 1.7 | 2.4 | 3.1 | 4.5 | 5.3 | 8.3 | 9   | 11  |
| 50G07       | 1.6   | 1.9  | 2.6 | 3.7 | 4.8 | 6.8 | 8.0 | 12  | 14  | 16  |
| 50G09       | 2.2   | 2.6  | 3.4 | 4.9 | 6.3 | 9.1 | 10  | 16  | 18  | 22  |
| 50G11       | 2.8   | 3.3  | 4.4 | 6.2 | 8.0 | 11  | 13  | 21  | 23  | 28  |
| 50G13       | 3.3   | 3.9  | 5.2 | 7.4 | 9.6 | 13  | 16  | 25  | 28  | 33  |
| 50G15       | 3.9   | 4.6  | 6.1 | 9   | 11  | 16  | 19  | 29  | 33  | 39  |
| 50G19       | 5.0   | 5.9  | 7.8 | 11  | 14  | 21  | 24  | 38  | 42  | 50  |
| 50G27       | 7.3   | 8.5  | 11  | 16  | 21  | 30  | 35  | 55  | 61  | 73  |
| <b>90G</b>  |       |      |     |     |     |     |     |     |     |     |
| 90G07       | 2.8   | 3.2  | 4.3 | 6.2 | 8.0 | 11  | 13  | 21  | 24  | 28  |
| 90G09       | 3.7   | 4.3  | 5.8 | 8.3 | 10  | 15  | 18  | 28  | 32  | 38  |
| 90G11       | 4.6   | 5.4  | 7.3 | 10  | 13  | 19  | 22  | 35  | 40  | 47  |
| 90G13       | 5.6   | 6.5  | 8.7 | 12  | 16  | 23  | 27  | 42  | 48  | 57  |
| 90G15       | 6.5   | 7.6  | 10  | 14  | 18  | 27  | 31  | 49  | 56  | 67  |
| <b>100G</b> |       |      |     |     |     |     |     |     |     |     |
| 100G13      | 5.9   | 7.0  | 9.4 | 13  | 17  | 25  | 30  | 47  | 54  | 63  |
| 100G15      | 6.9   | 8.1  | 11  | 15  | 20  | 29  | 35  | 55  | 63  | 74  |
| 100G17      | 7.9   | 9.3  | 12  | 18  | 23  | 33  | 40  | 63  | 72  | 85  |
| 100G19      | 8.9   | 10.5 | 14  | 20  | 26  | 38  | 45  | 71  | 81  | 95  |
| 100G21      | 9.9   | 11.6 | 15  | 22  | 29  | 42  | 50  | 79  | 90  | 106 |
| 100G23      | 10.9  | 12.8 | 17  | 24  | 32  | 46  | 55  | 87  | 99  | 117 |
| 100G25      | 11.9  | 14.0 | 18  | 27  | 35  | 50  | 60  | 95  | 108 | 127 |
| 100G27      | 12.8  | 15.1 | 20  | 29  | 38  | 55  | 65  | 103 | 117 | 138 |
| 100G29      | 13.8  | 16.3 | 22  | 31  | 41  | 59  | 70  | 110 | 126 | 149 |
| 100G31      | 14.8  | 17.5 | 23  | 34  | 44  | 63  | 75  | 118 | 135 | 159 |
| 100G33      | 15.8  | 18.7 | 25  | 36  | 47  | 67  | 80  | 126 | 144 | 170 |
| 100G39      | 17.7  | 21.0 | 28  | 39  | 51  | 75  | 90  | 141 | 162 | 189 |
| 100G45      | 20.7  | 24.3 | 33  | 45  | 60  | 87  | 105 | 165 | 189 | 222 |
| 100G51      | 23.7  | 27.9 | 36  | 54  | 69  | 99  | 120 | 189 | 216 | 255 |
| 100G57      | 26.7  | 31.5 | 42  | 60  | 78  | 114 | 135 | 213 | 243 | 285 |
| 100G63      | 29.7  | 34.8 | 45  | 66  | 87  | 126 | 150 | 237 | 270 | 318 |
| 100G69      | 32.7  | 38.4 | 51  | 72  | 96  | 138 | 165 | 261 | 297 | 351 |
| 100G75      | 35.7  | 42.0 | 54  | 81  | 105 | 150 | 180 | 285 | 324 | 381 |
| 100G81      | 38.4  | 45.3 | 60  | 87  | 114 | 165 | 195 | 309 | 351 | 414 |
| 100G87      | 41.4  | 48.9 | 66  | 93  | 123 | 177 | 210 | 330 | 378 | 447 |
| 100G93      | 44.4  | 52.5 | 69  | 102 | 132 | 189 | 225 | 354 | 405 | 477 |
| 100G99      | 47.7  | 56.1 | 75  | 108 | 141 | 201 | 240 | 378 | 432 | 510 |

For additional ratings, refer to section 26.10B.

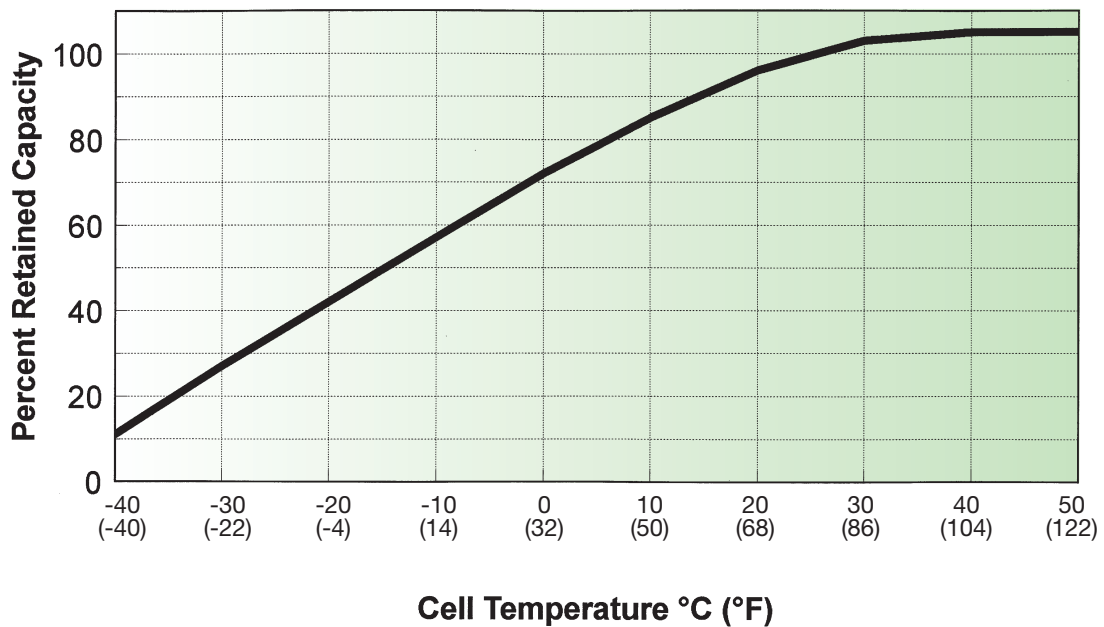
# ABSOLYTE<sup>®</sup> GP

## Absolyte GP Performance Characteristics

### Open Circuit Voltage vs. State of Charge [at 25°C (77°F)]



### Capacity Retention vs. Temperature

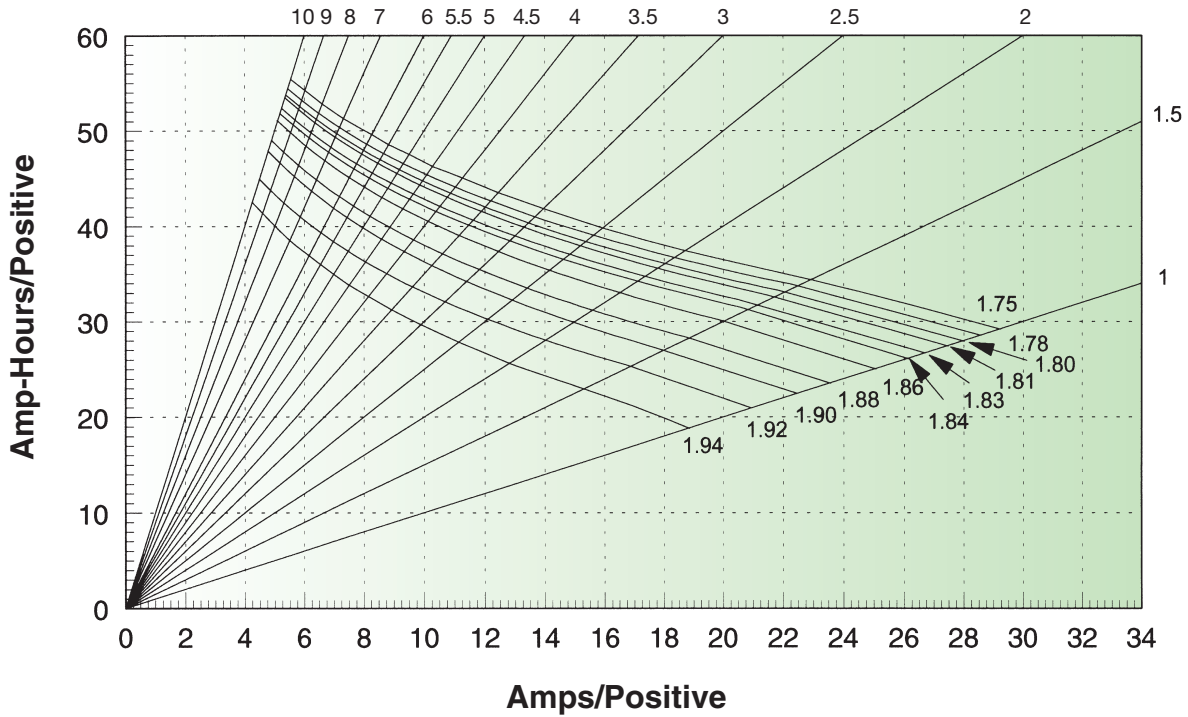




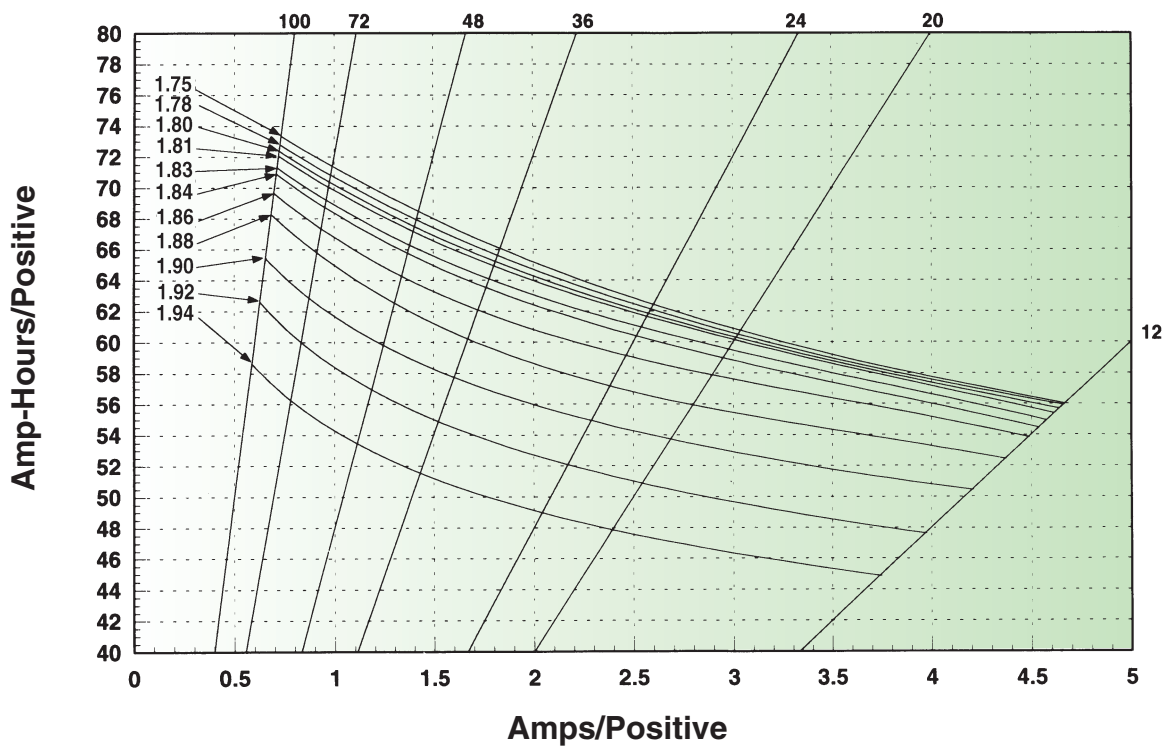
# ABSOLYTE<sup>®</sup> GP

Absolyte GP Performance Curves @ 25°C (77°F)

50G Series 1 to 10 Hours



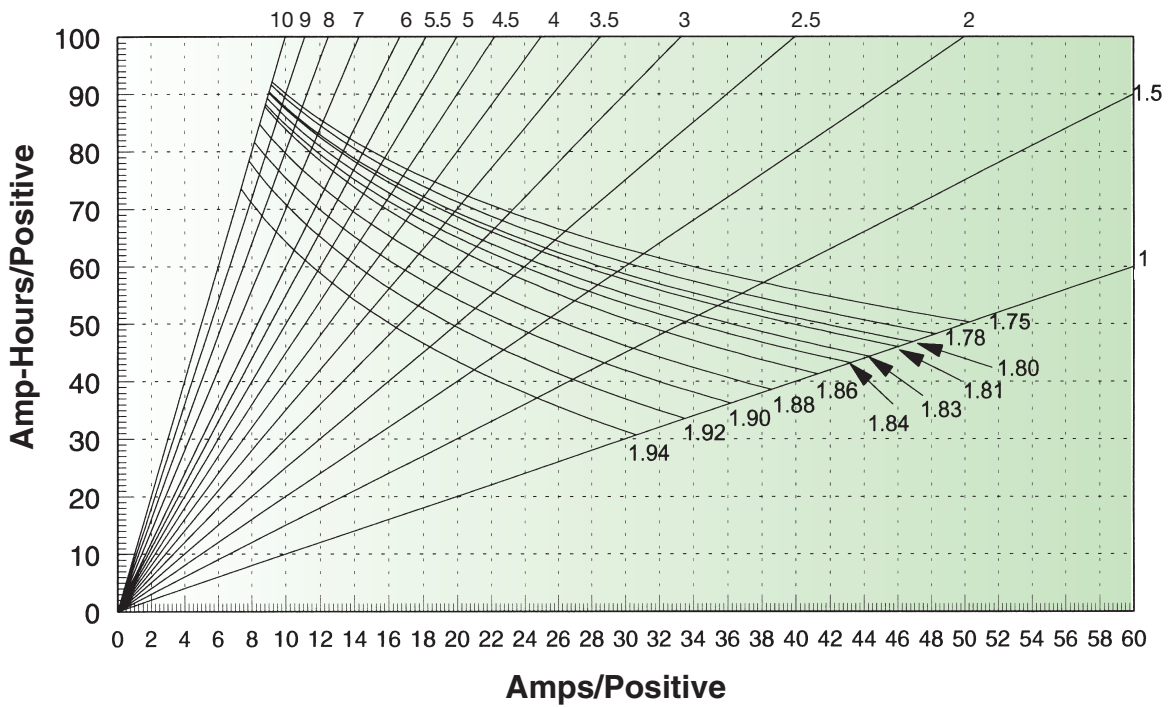
50G Series 12 to 100 Hours



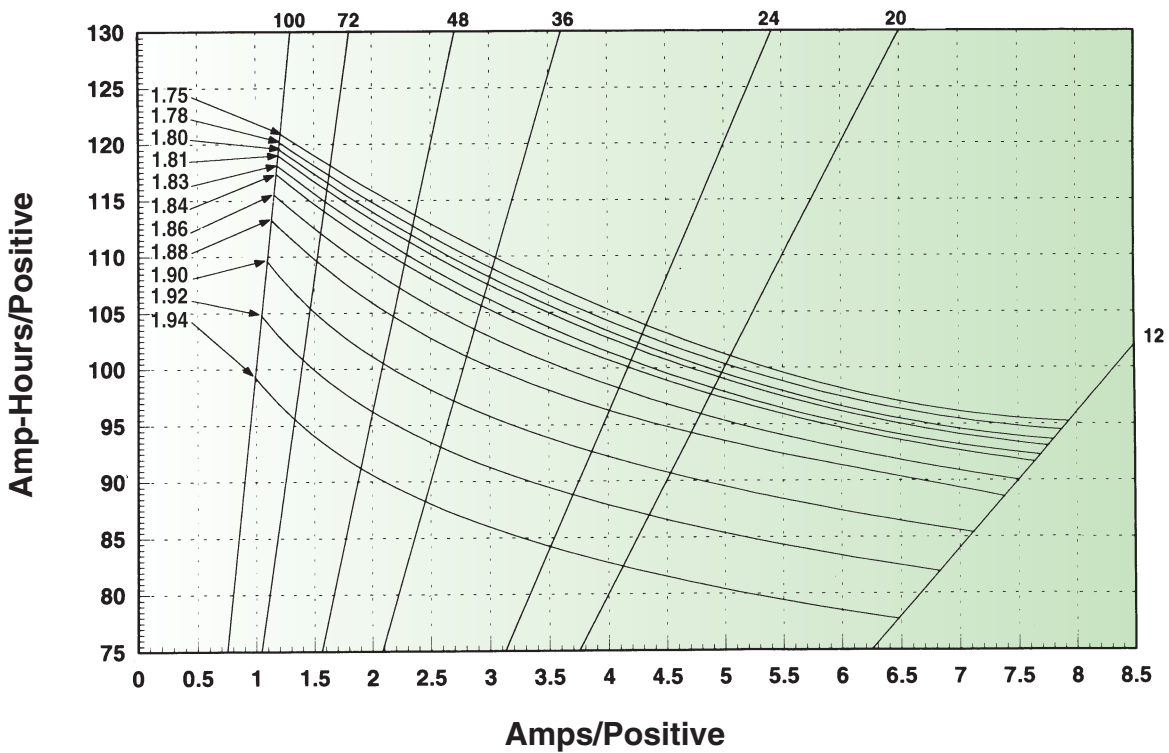
# ABSOLYTE® GP

Absolyte GP Performance Curves @ 25°C (77°F)

90G Series 1 to 10 Hours



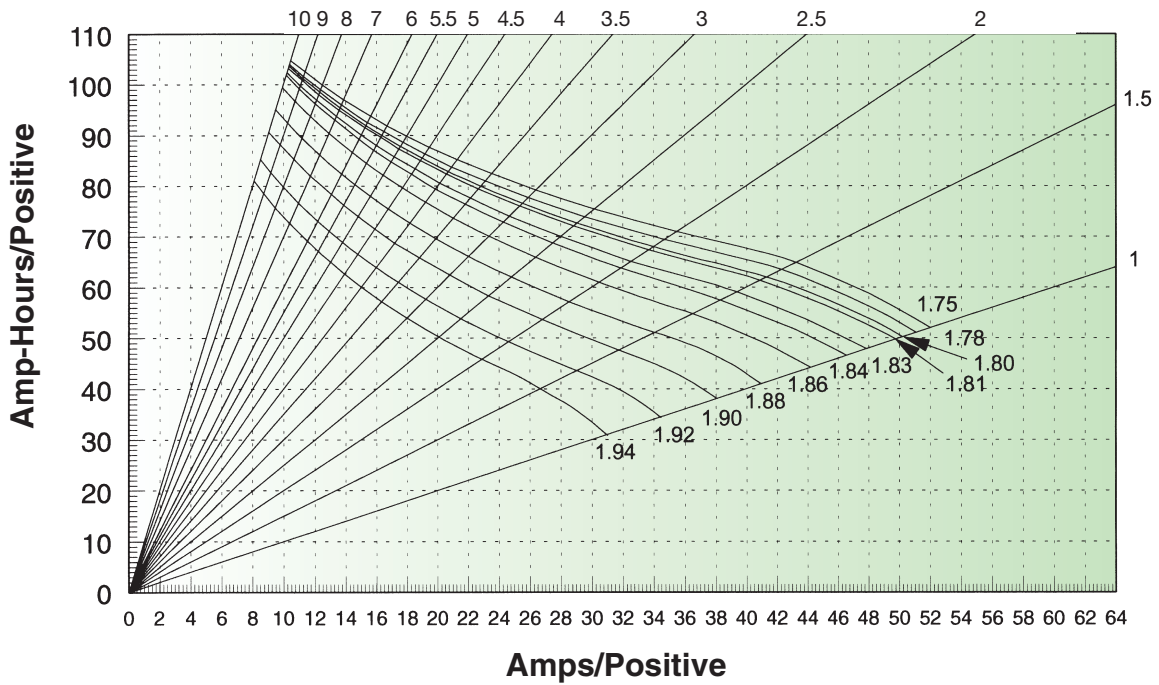
90G Series 12 to 100 Hours



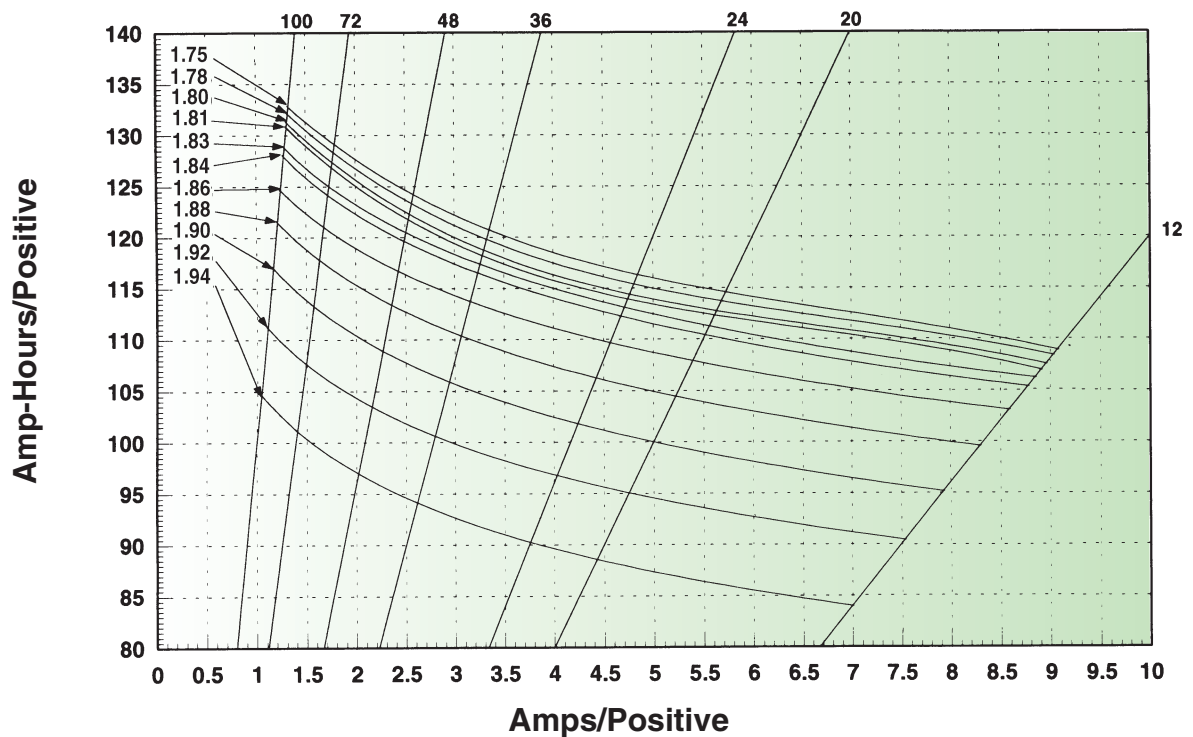
# ABSOLYTE<sup>®</sup> GP

Absolyte GP Performance Curves @ 25°C (77°F)

100G Series 1 to 10 Hours



100G Series 12 to 100 Hours



## Absolyte GP Maximum Module Stack Heights Horizontal Arrangement

| 1997 UBC Ground Level Zone |         |        |        |        |        |
|----------------------------|---------|--------|--------|--------|--------|
| Series                     | Height  | 1      | 2B     | 3      | 4      |
| 100G                       | 10 high | 100G33 | 100G33 | 100G31 | 100G17 |
|                            | 9 high  | 100G33 | 100G33 | 100G33 | 100G23 |
|                            | 8 high  | 100G33 | 100G33 | 100G33 | 100G33 |
| 90G                        | 10 high | 90G15  | 90G15  | 90G15  | 90G09  |
|                            | 9 high  | 90G15  | 90G15  | 90G15  | 90G11  |
|                            | 8 high  | 90G15  | 90G15  | 90G15  | 90G15  |
| 50G                        | 10 high | 50G09  | 50G09  | 50G09  | 50G09  |
|                            | 9 high  | 50G11  | 50G11  | 50G11  | 50G11  |
|                            | 8 high  | 50G15  | 50G15  | 50G15  | 50G15  |

| IEEE 693-2005 Certification Level |         |      |          |
|-----------------------------------|---------|------|----------|
| Series                            | Height  | High | Moderate |
| 100G                              | 10 high |      |          |
|                                   | 8 high  |      | X        |
|                                   | 5 high  |      | X        |
| 90G                               | 10 high |      |          |
|                                   | 8 high  |      | X        |
|                                   | 5 high  | X    |          |
| 50G                               | 10 high |      |          |
|                                   | 8 high  |      | X        |
|                                   | 5 high  | X    |          |

| IBC 2012 Certification |         |                    |                 |
|------------------------|---------|--------------------|-----------------|
| Series                 | Height  | SDS at/below grade | SDS above grade |
| 100G*                  | 10 high |                    |                 |
|                        | 8 high  | 0.81               | 0.51            |
|                        | 5 high  | 0.81               | 0.51            |
| 90G                    | 10 high |                    |                 |
|                        | 8 high  | 0.81               | 0.51            |
|                        | 5 high  | 2.50               | 1.56            |
| 50G                    | 10 high |                    |                 |
|                        | 8 high  | 0.81               | 0.51            |
|                        | 5 high  | 2.50               | 1.56            |

\*For higher SDS design, contact GNB Aurora

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