



PowerSafe[®]
GC-M
Switchgear, UPS and Utility

Performance Data

Features and Benefits

- Capacity range 875 - 3550Ah
- Lead-calcium alloy
- Electrolyte reserve reduces watering requirements
- Standard Styrene Acrylonitrile (SAN) jar with flame retardant PVC UL94 V-0 cover; flame retardant PC jar and cover available
- Thick positive grids maximize performance in long discharge applications
- 20 year life expectancy in float service at 77°F(25°C) ambient temperature

Construction

- 0.30" thick positive grids provide excellent long discharge rates and long life
- Negative plate configuration enhances high rate performance
- Separator – microporous rubber with "Vitrex" glass fiber retainers
- Electrolyte – dilute sulfuric acid with specific gravity of 1.215
- Slide-Lock™ post seal design
- Flame arrestors – included for increased operational safety

Installation & Operation

- Space efficient footprint
- Designed to be rack mounted with easy access to posts
- Excellent long discharge and complex duty cycle capability for switchgear applications
- Lead-calcium design reduces maintenance (less watering) over traditional lead antimony batteries
- 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 the manufacture of this product are ISO 9001 and ISO 14001 certified

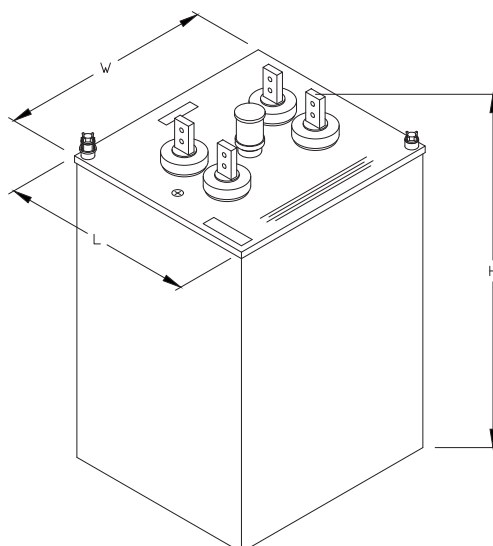
General Specifications

| Cell Type ¹ | NOM Ah Cap.* | Nominal Dimensions | | | | | | Weight - Volumes | | | | | | | |
|------------------------|--------------|--------------------|-----|-------|-----|--------|-----|------------------|-------|-----------------|-------|-----------------------------|--------|--------|------|
| | | Length** | | Width | | Height | | Unpacked | | Domestic Packed | | Electrolyte only/1.215 S.G. | | | |
| | | in | mm | in | mm | in | mm | lbs | kg | lbs | kg | Volume | | Weight | |
| | | | | | | | | | | | | gal | liters | lbs | kg |
| 2GC-09M | 875 | 12.4 | 315 | 15.1 | 384 | 27.0 | 688 | 375 | 170.5 | 395 | 179.5 | 13.6 | 51.5 | 138 | 62.7 |
| 2GC-11M | 1020 | 12.4 | 315 | 15.1 | 384 | 27.0 | 688 | 410 | 186.4 | 430 | 195.5 | 12.7 | 48.1 | 129 | 58.5 |
| 2GC-13M | 1140 | 12.4 | 315 | 15.1 | 384 | 27.0 | 688 | 445 | 202.3 | 465 | 211.4 | 11.9 | 45.0 | 121 | 54.9 |
| 2GC-15M | 1225 | 12.4 | 315 | 15.1 | 384 | 27.0 | 688 | 485 | 220.5 | 505 | 229.5 | 11.1 | 42.0 | 113 | 51.2 |
| 2GC-17M | 1540 | 16.6 | 422 | 15.1 | 384 | 27.0 | 688 | 585 | 265.9 | 607 | 275.9 | 16.3 | 61.7 | 166 | 75.1 |
| 2GC-19M | 1630 | 16.6 | 422 | 15.1 | 384 | 27.0 | 688 | 620 | 281.8 | 642 | 291.8 | 15.5 | 58.7 | 158 | 71.5 |
| 2GC-21M | 1695 | 16.6 | 422 | 15.1 | 384 | 27.0 | 688 | 655 | 297.7 | 677 | 307.7 | 14.7 | 55.6 | 149 | 67.8 |
| 2GC-23M | 1745 | 16.6 | 422 | 15.1 | 384 | 27.0 | 688 | 695 | 315.9 | 717 | 325.9 | 13.9 | 52.6 | 141 | 64.1 |
| GC-25M | 2260 | 12.4 | 315 | 15.1 | 384 | 27.0 | 688 | 440 | 200.0 | 460 | 209.1 | 12.3 | 46.4 | 125 | 56.5 |
| GC-27M | 2360 | 12.4 | 315 | 15.1 | 384 | 27.0 | 688 | 460 | 209.1 | 480 | 218.2 | 11.9 | 45.0 | 121 | 54.9 |
| GC-29M | 2450 | 12.4 | 315 | 15.1 | 384 | 27.0 | 688 | 480 | 218.2 | 500 | 227.3 | 11.5 | 43.3 | 116 | 52.8 |
| GC-31M | 2515 | 12.4 | 315 | 15.1 | 384 | 27.0 | 688 | 495 | 225.0 | 515 | 234.1 | 11.1 | 42.0 | 113 | 51.2 |
| GC-33M | 2560 | 12.4 | 315 | 15.1 | 384 | 27.0 | 688 | 515 | 234.1 | 535 | 243.2 | 10.7 | 40.3 | 108 | 49.1 |
| GC-35M | 3085 | 16.6 | 422 | 15.1 | 384 | 27.0 | 688 | 610 | 277.3 | 632 | 287.3 | 16.0 | 60.4 | 162 | 73.5 |
| GC-37M | 3200 | 16.6 | 422 | 15.1 | 384 | 27.0 | 688 | 630 | 286.4 | 652 | 296.4 | 15.6 | 59.1 | 159 | 71.9 |
| GC-39M | 3300 | 16.6 | 422 | 15.1 | 384 | 27.0 | 688 | 650 | 295.5 | 672 | 305.5 | 15.2 | 57.3 | 154 | 69.8 |
| GC-41M | 3385 | 16.6 | 422 | 15.1 | 384 | 27.0 | 688 | 665 | 302.3 | 687 | 312.3 | 14.8 | 56.0 | 150 | 68.2 |
| GC-43M | 3470 | 16.6 | 422 | 15.1 | 384 | 27.0 | 688 | 685 | 311.4 | 707 | 321.4 | 14.4 | 54.3 | 146 | 66.2 |
| GC-45M | 3550 | 16.6 | 422 | 15.1 | 384 | 27.0 | 688 | 705 | 320.5 | 727 | 330.5 | 14.0 | 52.8 | 142 | 64.3 |

¹ Prefix number indicates cells per unit. Suffix number indicates total plates per cell.

*Nominal Ah capacity is based on an 8 hour rate to 1.75 volts per cell @ 77°F (25°C)

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



Constant Current

Discharge Rates in Amperes* to 1.75Vpc at 25°C (77°F)**

| Cell Type | NOM Ah Cap. ¹ | Minutes | | | Hours | | | | | | | | | |
|-----------|-----------------------------|---------|------|------|-------|------|------|-----|-----|-----|-----|-----|-----|----|
| | | 1 | 15 | 30 | 1 | 1.5 | 2 | 3 | 4 | 5 | 8 | 12 | 24 | 72 |
| 2GC-09M | 875 | 717 | 670 | 550 | 410 | 331 | 280 | 216 | 178 | 153 | 109 | 79 | 47 | 20 |
| 2GC-11M | 1020 | 877 | 809 | 666 | 496 | 399 | 335 | 258 | 211 | 180 | 128 | 92 | 53 | 22 |
| 2GC-13M | 1140 | 1029 | 938 | 775 | 576 | 461 | 386 | 294 | 240 | 204 | 142 | 101 | 58 | 23 |
| 2GC-15M | 1225 | 1172 | 1057 | 876 | 650 | 517 | 431 | 326 | 264 | 223 | 153 | 108 | 60 | 23 |
| 2GC-17M | 1540 | 1404 | 1307 | 1072 | 788 | 628 | 524 | 398 | 324 | 275 | 192 | 137 | 78 | 31 |
| 2GC-19M | 1630 | 1564 | 1432 | 1173 | 860 | 681 | 566 | 428 | 347 | 293 | 204 | 144 | 81 | 31 |
| 2GC-21M | 1695 | 1721 | 1549 | 1266 | 924 | 729 | 604 | 454 | 366 | 308 | 212 | 149 | 82 | 31 |
| 2GC-23M | 1745 | 1877 | 1659 | 1355 | 984 | 773 | 638 | 476 | 382 | 321 | 218 | 153 | 82 | 30 |
| GC-25M | 2260 | 2103 | 1872 | 1536 | 1137 | 908 | 760 | 580 | 473 | 403 | 282 | 201 | 116 | 46 |
| GC-27M | 2360 | 2231 | 1989 | 1634 | 1208 | 963 | 805 | 612 | 498 | 422 | 295 | 210 | 119 | 46 |
| GC-29M | 2450 | 2353 | 2101 | 1727 | 1275 | 1014 | 846 | 641 | 520 | 440 | 306 | 217 | 121 | 46 |
| GC-31M | 2515 | 2466 | 2207 | 1815 | 1339 | 1062 | 884 | 667 | 539 | 455 | 314 | 222 | 122 | 46 |
| GC-33M | 2560 | 2575 | 2308 | 1899 | 1399 | 1107 | 920 | 691 | 556 | 468 | 320 | 226 | 122 | 44 |
| GC-35M | 3085 | 2774 | 2490 | 2054 | 1524 | 1217 | 1020 | 781 | 640 | 545 | 386 | 277 | 160 | 65 |
| GC-37M | 3200 | 2875 | 2598 | 2148 | 1598 | 1277 | 1070 | 817 | 668 | 568 | 400 | 286 | 163 | 65 |
| GC-39M | 3300 | 2970 | 2699 | 2237 | 1668 | 1334 | 1116 | 851 | 693 | 589 | 413 | 294 | 166 | 65 |
| GC-41M | 3385 | 3064 | 2797 | 2325 | 1738 | 1390 | 1162 | 883 | 718 | 608 | 423 | 301 | 167 | 64 |
| GC-43M | 3470 | 3150 | 2893 | 2411 | 1806 | 1445 | 1208 | 916 | 742 | 627 | 434 | 307 | 169 | 63 |
| GC-45M | 3550 | 3245 | 2998 | 2505 | 1880 | 1504 | 1255 | 948 | 766 | 646 | 444 | 313 | 169 | 61 |

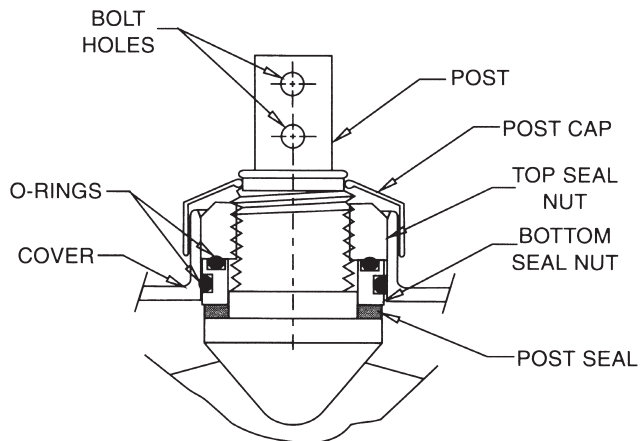
*Ampere values listed represent 100% of the cell's initial capacity.
 **1.215 S.G. electrolyte at 77°F (25°C) includes intercell connector drop.
¹Nominal Amp-hour capacity at the 8 hour rate.
 All data subject to change without notice.

Discharge Rates in Amperes* to 1.81Vpc at 25°C (77°F)**

| Cell Type | NOM Ah Cap. ¹ | Minutes | | | Hours | | | | | | | | | |
|-----------|-----------------------------|---------|------|------|-------|------|------|-----|-----|-----|-----|-----|-----|----|
| | | 1 | 15 | 30 | 1 | 1.5 | 2 | 3 | 4 | 5 | 8 | 12 | 24 | 72 |
| 2GC-09M | 875 | 507 | 507 | 453 | 354 | 293 | 252 | 199 | 167 | 144 | 104 | 77 | 46 | 19 |
| 2GC-11M | 1020 | 632 | 631 | 552 | 429 | 354 | 303 | 237 | 197 | 170 | 121 | 88 | 52 | 21 |
| 2GC-13M | 1140 | 748 | 748 | 645 | 500 | 410 | 349 | 271 | 224 | 191 | 135 | 98 | 56 | 22 |
| 2GC-15M | 1225 | 859 | 859 | 732 | 565 | 461 | 390 | 300 | 246 | 209 | 146 | 104 | 58 | 22 |
| 2GC-17M | 1540 | 1025 | 1024 | 892 | 683 | 558 | 473 | 366 | 301 | 257 | 181 | 131 | 76 | 30 |
| 2GC-19M | 1630 | 1141 | 1141 | 977 | 745 | 606 | 511 | 394 | 323 | 275 | 192 | 138 | 79 | 31 |
| 2GC-21M | 1695 | 1254 | 1251 | 1055 | 802 | 649 | 546 | 418 | 340 | 288 | 200 | 143 | 80 | 30 |
| 2GC-23M | 1745 | 1362 | 1342 | 1129 | 854 | 688 | 577 | 438 | 355 | 300 | 206 | 147 | 80 | 29 |
| GC-25M | 2260 | 1542 | 1525 | 1290 | 995 | 814 | 691 | 538 | 444 | 380 | 269 | 195 | 113 | 46 |
| GC-27M | 2360 | 1629 | 1616 | 1368 | 1053 | 860 | 729 | 565 | 465 | 398 | 280 | 202 | 116 | 46 |
| GC-29M | 2450 | 1710 | 1701 | 1440 | 1107 | 903 | 764 | 590 | 484 | 413 | 290 | 208 | 118 | 46 |
| GC-31M | 2515 | 1785 | 1782 | 1508 | 1157 | 943 | 796 | 612 | 500 | 426 | 297 | 212 | 118 | 45 |
| GC-33M | 2560 | 1852 | 1851 | 1571 | 1204 | 978 | 824 | 632 | 514 | 436 | 302 | 215 | 118 | 43 |
| GC-35M | 3085 | 1921 | 1920 | 1686 | 1300 | 1062 | 906 | 709 | 588 | 506 | 362 | 265 | 156 | 64 |
| GC-37M | 3200 | 2021 | 2020 | 1764 | 1364 | 1115 | 950 | 742 | 614 | 527 | 375 | 273 | 159 | 64 |
| GC-39M | 3300 | 2115 | 2114 | 1838 | 1424 | 1165 | 993 | 772 | 638 | 546 | 386 | 280 | 161 | 63 |
| GC-41M | 3385 | 2201 | 2200 | 1912 | 1484 | 1215 | 1034 | 802 | 660 | 564 | 396 | 285 | 162 | 62 |
| GC-43M | 3470 | 2281 | 2281 | 1983 | 1542 | 1265 | 1075 | 832 | 683 | 582 | 405 | 291 | 162 | 61 |
| GC-45M | 3550 | 2368 | 2368 | 2060 | 1605 | 1317 | 1118 | 862 | 706 | 599 | 414 | 295 | 161 | 59 |

*Ampere values listed represent 100% of the cell's initial capacity.
 **1.215 S.G. electrolyte at 77°F (25°C) includes intercell connector drop.
¹Nominal Amp-hour capacity at the 8 hour rate.
 All data subject to change without notice.

Slide-Lock™ Post Seal



Catalog Rint and Isc Catalog Values

| Cell Type | *Resistance | Isc |
|-----------|-------------|-------|
| | Milliohms | Amps |
| GC-09M | 0.275 | 7270 |
| GC-11M | 0.24 | 8330 |
| GC-13M | 0.213 | 9380 |
| GC-15M | 0.193 | 10370 |
| GC-17M | 0.148 | 13560 |
| GC-19M | 0.138 | 14520 |
| GC-21M | 0.128 | 15630 |
| GC-23M | 0.118 | 16920 |
| GC-25M | 0.107 | 18750 |
| GC-27M | 0.101 | 19850 |
| GC-29M | 0.095 | 21050 |
| GC-31M | 0.089 | 22390 |
| GC-33M | 0.085 | 23530 |
| GC-35M | 0.076 | 26150 |
| GC-37M | 0.074 | 27070 |
| GC-39M | 0.072 | 27740 |
| GC-41M | 0.071 | 28370 |
| GC-43M | 0.069 | 28970 |
| GC-45M | 0.067 | 29930 |

* Resistance values are for reference only not intended to represent an ohmic value or base line measurement.



EnerSys World Headquarters
2366 Bernville Road
Reading, PA 19605, USA
Tel: +1-610-208-1991 /
+1-800-538-3627

EnerSys EMEA
EH Europe GmbH
Baarerstrasse 18
6300 Zug
Switzerland

EnerSys Asia
152 Beach Road
Gateway East Building #11-08
Singapore 189721
Tel: +65 6416 4800

Contact: