

VRPP

Nickel Cadmium Valve regulated Pocket Plate Batteries



Dimensional and Electrical Data



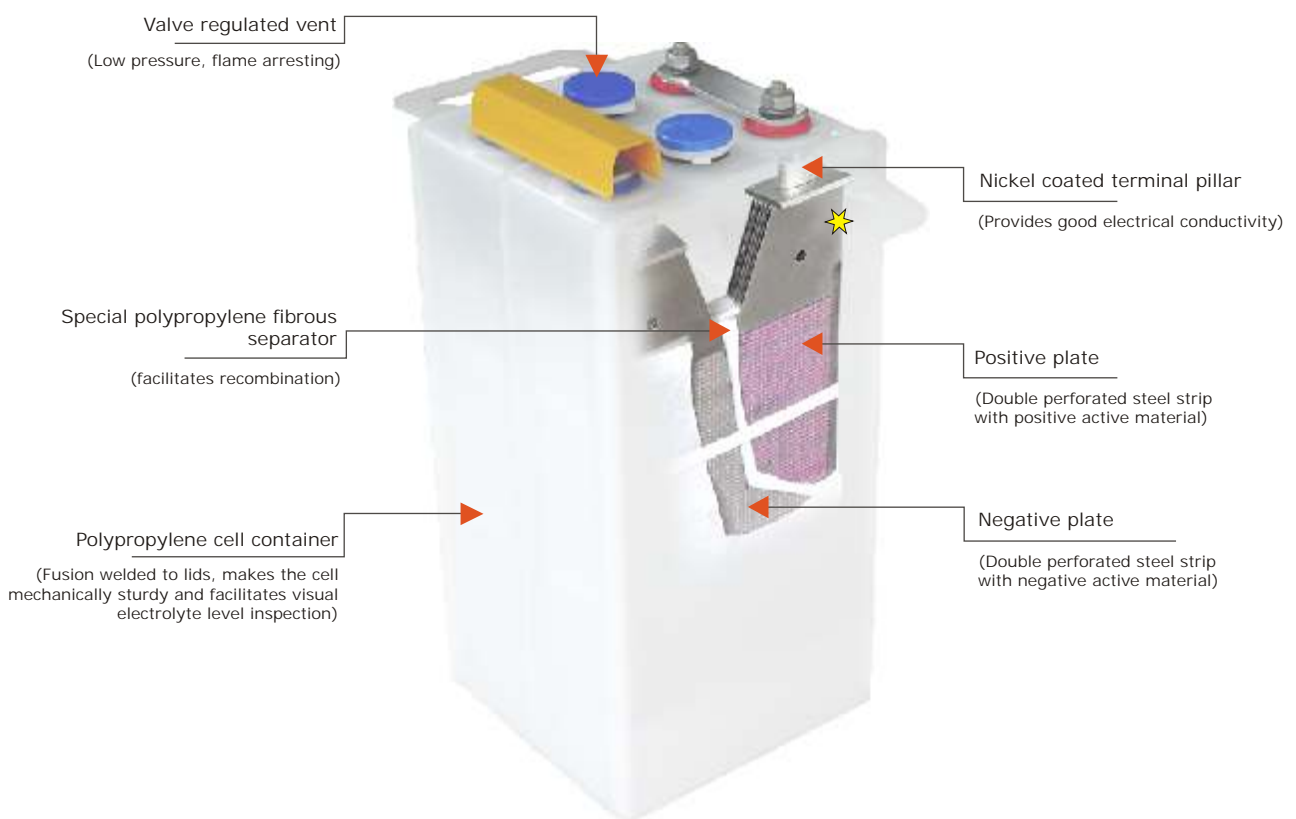
The Valve Regulated Pocket Plate (VRPP) battery combines the unmatched reliability of Nickel Cadmium pocket plate technology, with the convenience of ultra-low maintenance requirements.

VRPP's controlled recombination system, with valve regulated venting means no water replenishment is needed during its lifetime under recommended operating conditions. VRPP performs in severe environments, in temperatures ranging from -20°C to $+50^{\circ}\text{C}$, and can survive over-discharge, reversal or prolonged overcharge with no damage.

The Pocket Plate design consists of the active materials encapsulated between folded steel strips which are perforated from both sides. This double perforation method increases the effective surface area by 30% and helps in better utilization of the active material thereby making the battery more efficient. In addition to the Pocket Plate design, the VRPP batteries use a special separator which allows gases generated during charging to recombine inside the cell thus ensuring no water is lost. This makes the VRPP battery virtually maintenance-free. A self resealing type vent cap is also employed to release any excess pressure developed inside the cell during abnormal operation.

Construction

The construction of VRPP is based on conventional pocket plate technology, introducing special features to eliminate the need for water topping.



★ VRPP battery is available in both welded (shown here) and bolted construction.

VRPP benefits

- ▷ Long life
- ▷ Reliable and predictable performance
- ▷ Resistant to abuse, electrical and mechanical
- ▷ Zero or ultra- low maintenance
- ▷ No sudden death failure due to internal corrosion
- ▷ Wide operating temperature range
- ▷ Low installation and life cycle cost
- ▷ Negligible gassing
- ▷ Excellent high rate discharge capability
- ▷ Good performance at low temperature



IEC/EN 60623

The fully integrated modern factory, supported by strong process management and quality controls makes HBL one of the best Nickel Cadmium battery production facilities in the world.

Battery applications

HBL's VRPP batteries are the best solution for installations, whether they are UPS systems, emergency lighting systems, telecommunications, where the risk of failure of the system is unacceptable and frequent maintenance is difficult. VRPP batteries are also eminently suitable for remote applications such as photovoltaic systems, offshore oil and gas and switching substations, where the system must have total reliability without the need for battery maintenance.

Various applications where VRPP is used:

- ▷ Emergency lighting
- ▷ Railway signaling
- ▷ Switchgear
- ▷ Telecommunications
- ▷ Fire and Security systems
- ▷ UPS
- ▷ Offshore oil and gas
- ▷ Photovoltaics
- ▷ Process control
- ▷ Mass transit



VRPP Range

Cell Dimensions and Weight

| Cell type | Capacity at 5 hour rate (Ah) | Cont. Size Ref. | Cell Dimensions in mm | | | | | | Cell Weight in Kgs. for 1.2V | Cell Connection Bolt(s) Size | Volume of Electrolyte above Plates (cc) |
|-----------|------------------------------|-----------------|-----------------------|-------|-----------|-----------|-----------|-----------|------------------------------|------------------------------|---|
| | | | Height | Width | Length | | | | | | |
| | | | | | 1.2V L(1) | 2.4V L(2) | 3.6V L(3) | 4.8V L(4) | | | |
| VRPP | 8 | 8 | B21-1 | 264 | 123 | 79 | 110 | 140 | 1.4 | M8 | 151 |
| VRPP | 12 | 12 | B21-1 | 264 | 123 | 79 | 110 | 140 | 1.5 | M8 | 151 |
| VRPP | 16 | 16 | B21-1 | 264 | 123 | 79 | 110 | 140 | 1.6 | M8 | 151 |
| VRPP | 18 | 18 | B21-1 | 264 | 123 | 79 | 110 | 140 | 1.7 | M8 | 151 |
| VRPP | 24 | 24 | B22-1 | 264 | 123 | 88 | 124 | 160 | 2.2 | M8 | 178 |
| VRPP | 27 | 27 | B23-1 | 264 | 123 | 113 | 161 | 208 | 2.6 | M8 | 245 |
| VRPP | 32 | 32 | B23-1 | 264 | 123 | 113 | 161 | 208 | 2.7 | M8 | 245 |
| VRPP | 36 | 36 | B23-1 | 264 | 123 | 113 | 161 | 208 | 2.8 | M8 | 245 |
| VRPP | 40 | 40 | B24-1 | 264 | 123 | 137 | 197 | 256 | 3.2 | M8 | 312 |
| VRPP | 45 | 45 | B24-1 | 264 | 123 | 137 | 197 | 256 | 3.9 | M8 | 312 |
| VRPP | 50 | 50 | B45-1 | 405 | 195 | 91 | 126 | | 4.4 | M10 | 466 |
| VRPP | 57 | 57 | B45-1 | 405 | 195 | 91 | 126 | | 4.6 | M10 | 466 |
| VRPP | 66 | 66 | B45-1 | 405 | 195 | 91 | 126 | | 4.8 | M10 | 466 |
| VRPP | 71 | 71 | B45-1 | 405 | 195 | 91 | 126 | | 5.0 | M10 | 466 |
| VRPP | 76 | 76 | B44-1 | 405 | 195 | 104 | 148 | | 5.8 | M10 | 580 |
| VRPP | 82 | 82 | B44-1 | 405 | 195 | 104 | 148 | | 6.2 | M10 | 580 |
| VRPP | 89 | 89 | B44-1 | 405 | 195 | 104 | 148 | | 6.6 | M10 | 580 |
| VRPP | 95 | 95 | B44-1 | 405 | 195 | 104 | 148 | | 6.9 | M10 | 580 |
| VRPP | 103 | 103 | B42A-1 | 405 | 195 | 125 | 179 | | 7.4 | M10 | 803 |
| VRPP | 111 | 111 | B42A-1 | 405 | 195 | 125 | 179 | | 7.6 | M10 | 803 |
| VRPP | 119 | 119 | B42A-1 | 405 | 195 | 125 | 179 | | 8.0 | M10 | 803 |
| VRPP | 133 | 133 | B42-1 | 405 | 195 | 144 | 204 | | 8.9 | M10 | 917 |
| VRPP | 142 | 142 | B42-1 | 405 | 195 | 144 | 204 | | 9.2 | M10 | 917 |
| VRPP | 155 | 155 | B41B-1 | 405 | 195 | 169 | 242 | | 9.9 | M10 | 1130 |
| VRPP | 166 | 166 | B41B-1 | 405 | 195 | 169 | 242 | | 10.6 | M10 | 1130 |
| VRPP | 178 | 178 | B44-2 | 405 | 195 | 110 | 197 | 284 | 13.3 | 2xM10 | 1160 |
| VRPP | 190 | 190 | B44-2 | 405 | 195 | 110 | 197 | 284 | 13.5 | 2xM10 | 1160 |
| VRPP | 206 | 206 | B42A-2 | 405 | 195 | 131 | 239 | 347 | 14.1 | 2xM10 | 1606 |
| VRPP | 222 | 222 | B42A-2 | 405 | 195 | 131 | 239 | 347 | 14.5 | 2xM10 | 1606 |
| VRPP | 238 | 238 | B42A-2 | 405 | 195 | 131 | 239 | 347 | 15.3 | 2xM10 | 1606 |
| VRPP | 266 | 266 | B42-2 | 405 | 195 | 144 | 264 | 384 | 16.8 | 2xM10 | 1834 |
| VRPP | 285 | 285 | B42-2 | 405 | 195 | 144 | 264 | 384 | 17.7 | 2xM10 | 1834 |
| VRPP | 310 | 310 | B41B-2 | 405 | 195 | 169 | 315 | 461 | 19.0 | 2xM10 | 2260 |
| VRPP | 332 | 332 | B41B-2 | 405 | 195 | 169 | 315 | 461 | 20.5 | 2xM10 | 2260 |
| VRPP | 357 | 357 | B42A-3 | 405 | 195 | 185 | 347 | | 22.9 | 3xM10 | 2409 |
| VRPP | 370 | 370 | B42-3 | 405 | 195 | 204 | | | 24.2 | 3xM10 | 2751 |
| VRPP | 400 | 400 | B42-3 | 405 | 195 | 204 | | | 25.6 | 3xM10 | 2751 |
| VRPP | 426 | 426 | B42-3 | 405 | 195 | 204 | | | 26.5 | 3xM10 | 2751 |
| VRPP | 438 | 438 | B41B-3 | 405 | 195 | 242 | | | 28.3 | 3xM10 | 3390 |
| VRPP | 476 | 476 | B41B-3 | 405 | 195 | 242 | | | 28.9 | 3xM10 | 3390 |
| VRPP | 498 | 498 | B41B-3 | 405 | 195 | 242 | | | 30.7 | 3xM10 | 3390 |
| VRPP | 530 | 530 | B42-4 | 405 | 195 | 264 | | | 34.0 | 4xM10 | 3668 |
| VRPP | 568 | 568 | B42-4 | 405 | 195 | 264 | | | 35.2 | 4 xM10 | 3668 |
| VRPP | 580 | 580 | B41B-4 | 405 | 195 | 315 | | | 37.2 | 4 xM10 | 4520 |
| VRPP | 624 | 624 | B41B-4 | 405 | 195 | 315 | | | 38.2 | 4 xM10 | 4520 |
| VRPP | 664 | 664 | B41B-4 | 405 | 195 | 315 | | | 40.8 | 4 xM10 | 4520 |
| VRPP | 710 | 710 | B42-5 | 405 | 195 | 324 | | | 43.9 | 5x M10 | 4585 |
| VRPP | 728 | 728 | B41B-5 | 405 | 195 | 388 | | | 47.0 | 5x M10 | 5650 |

* In accordance with its policy of continuous improvement the company reserves the right to change specifications and designs without notice
 Illustrations, data, dimensions and weights given in this brochure are for guidance only and cannot be held binding on the company.

Performance data

Performance after prolonged float charge of fully charged cells

Available amperes at +20 +/- 5 deg.C

End Voltage 1.00 V / Cell

| Cell Type | C ₅ Ah | Hours | | | | | Minutes | | | | | | Seconds | | | |
|-----------|-------------------|-------|------|------|------|------|---------|------|------|------|------|------|---------|------|------|------|
| | | 10 | 8 | 5 | 3 | 2 | 90 | 60 | 45 | 30 | 10 | 5 | 60 | 30 | 10 | 1 |
| VRPP 8 | 8 | 0.80 | 1.00 | 1.60 | 2.56 | 3.77 | 4.71 | 6.12 | 6.90 | 8.00 | 10.9 | 12.2 | 16.2 | 17.9 | 21.1 | 25.5 |
| VRPP 12 | 12 | 1.20 | 1.50 | 2.40 | 3.85 | 5.66 | 7.06 | 9.18 | 10.3 | 12.0 | 16.3 | 18.4 | 24.2 | 26.8 | 31.6 | 38.2 |
| VRPP 16 | 16 | 1.60 | 2.00 | 3.20 | 5.13 | 7.55 | 9.41 | 12.2 | 13.8 | 16.0 | 21.8 | 24.5 | 32.3 | 35.7 | 42.2 | 51.0 |
| VRPP 18 | 18 | 1.80 | 2.25 | 3.60 | 5.77 | 8.49 | 10.6 | 13.8 | 15.5 | 18.0 | 24.5 | 27.5 | 36.4 | 40.2 | 47.4 | 57.3 |
| VRPP 24 | 24 | 2.40 | 3.00 | 4.80 | 7.69 | 11.3 | 14.1 | 18.4 | 20.7 | 24.0 | 32.7 | 36.7 | 48.5 | 53.6 | 63.2 | 76.5 |
| VRPP 27 | 27 | 2.70 | 3.37 | 5.40 | 8.65 | 12.7 | 15.9 | 20.7 | 23.3 | 27.0 | 36.7 | 41.3 | 54.5 | 60.3 | 71.1 | 86.0 |
| VRPP 32 | 32 | 3.20 | 4.00 | 6.40 | 10.3 | 15.1 | 18.8 | 24.5 | 27.6 | 32.0 | 43.5 | 49.0 | 64.6 | 71.4 | 84.3 | 102 |
| VRPP 36 | 36 | 3.60 | 4.50 | 7.20 | 11.5 | 17.0 | 21.2 | 27.5 | 31.0 | 36.0 | 49.0 | 55.1 | 72.7 | 80.4 | 94.9 | 115 |
| VRPP 40 | 40 | 4.00 | 5.00 | 8.00 | 12.8 | 18.9 | 23.5 | 30.6 | 34.5 | 40.0 | 54.4 | 61.2 | 80.8 | 89.3 | 105 | 128 |
| VRPP 45 | 45 | 4.50 | 5.62 | 9.00 | 14.4 | 21.2 | 26.5 | 34.4 | 38.8 | 45.0 | 61.2 | 68.8 | 90.9 | 100 | 119 | 143 |
| VRPP 50 | 50 | 5.10 | 6.31 | 10.0 | 16.3 | 23.9 | 29.4 | 38.3 | 43.3 | 49.9 | 66.2 | 70.6 | 86.8 | 95 | 108 | 126 |
| VRPP 57 | 57 | 5.82 | 7.20 | 11.4 | 18.6 | 27.2 | 33.5 | 43.6 | 49.4 | 56.8 | 75.5 | 80.5 | 99.0 | 108 | 123 | 143 |
| VRPP 66 | 66 | 6.73 | 8.33 | 13.2 | 21.6 | 31.5 | 38.8 | 50.5 | 57.1 | 65.8 | 87.4 | 93.2 | 115 | 125 | 142 | 166 |
| VRPP 71 | 71 | 7.24 | 8.96 | 14.2 | 23.2 | 33.9 | 41.8 | 54.3 | 61.5 | 70.8 | 94.0 | 100 | 123 | 134 | 153 | 178 |
| VRPP 76 | 76 | 7.76 | 9.60 | 15.2 | 24.8 | 36.3 | 44.7 | 58.1 | 65.8 | 75.8 | 101 | 107 | 132 | 144 | 164 | 191 |
| VRPP 82 | 82 | 8.37 | 10.4 | 16.4 | 26.8 | 39.1 | 48.2 | 62.7 | 71.0 | 81.8 | 109 | 116 | 142 | 155 | 177 | 206 |
| VRPP 89 | 89 | 9.08 | 11.2 | 17.8 | 29.1 | 42.5 | 52.4 | 68.1 | 77.1 | 88.7 | 118 | 126 | 155 | 168 | 192 | 224 |
| VRPP 95 | 95 | 9.69 | 12.0 | 19.0 | 31.0 | 45.3 | 55.9 | 72.7 | 82.3 | 94.7 | 126 | 134 | 165 | 180 | 205 | 239 |
| VRPP 103 | 103 | 10.5 | 13.0 | 20.6 | 33.7 | 49.2 | 60.6 | 78.8 | 89.2 | 103 | 136 | 145 | 179 | 195 | 222 | 259 |
| VRPP 111 | 111 | 11.3 | 14.0 | 22.2 | 36.3 | 53.0 | 65.3 | 84.9 | 96.1 | 111 | 147 | 157 | 193 | 210 | 239 | 279 |
| VRPP 119 | 119 | 12.1 | 15.0 | 23.8 | 38.9 | 56.8 | 70.0 | 91.0 | 103 | 119 | 157 | 168 | 207 | 225 | 256 | 299 |
| VRPP 133 | 133 | 13.6 | 16.8 | 26.6 | 43.5 | 63.5 | 78.2 | 102 | 115 | 133 | 176 | 188 | 231 | 251 | 287 | 334 |
| VRPP 142 | 142 | 14.5 | 17.9 | 28.4 | 46.4 | 67.8 | 83.5 | 109 | 123 | 142 | 188 | 201 | 247 | 268 | 306 | 357 |
| VRPP 155 | 155 | 15.8 | 19.6 | 31.0 | 50.7 | 74.0 | 91.2 | 119 | 134 | 155 | 205 | 219 | 269 | 293 | 334 | 389 |
| VRPP 166 | 166 | 16.9 | 21.0 | 33.2 | 54.2 | 79.2 | 97.6 | 127 | 144 | 165 | 220 | 234 | 288 | 314 | 358 | 417 |
| VRPP 178 | 178 | 18.2 | 22.5 | 35.6 | 58.2 | 85.0 | 105 | 136 | 154 | 177 | 236 | 251 | 309 | 336 | 384 | 447 |
| VRPP 190 | 190 | 19.4 | 24.0 | 38.0 | 62.1 | 90.7 | 112 | 145 | 165 | 189 | 251 | 268 | 330 | 359 | 409 | 477 |
| VRPP 206 | 206 | 21.0 | 26.0 | 41.2 | 67.3 | 98.3 | 121 | 158 | 178 | 205 | 273 | 291 | 358 | 389 | 444 | 518 |
| VRPP 222 | 222 | 22.7 | 28.0 | 44.4 | 72.5 | 106 | 131 | 170 | 192 | 221 | 294 | 314 | 385 | 420 | 478 | 558 |
| VRPP 238 | 238 | 24.3 | 30.0 | 47.6 | 77.8 | 114 | 140 | 182 | 206 | 237 | 315 | 336 | 413 | 450 | 513 | 598 |
| VRPP 266 | 266 | 27.1 | 33.6 | 53.2 | 86.9 | 127 | 156 | 204 | 230 | 265 | 352 | 376 | 462 | 503 | 573 | 668 |
| VRPP 285 | 285 | 29.1 | 36.0 | 57.0 | 93.1 | 136 | 168 | 218 | 247 | 284 | 377 | 403 | 495 | 539 | 614 | 716 |
| VRPP 310 | 310 | 31.6 | 39.1 | 62.0 | 101 | 148 | 182 | 237 | 268 | 309 | 411 | 438 | 538 | 586 | 668 | 779 |
| VRPP 332 | 332 | 33.9 | 41.9 | 66.4 | 108 | 158 | 195 | 254 | 287 | 331 | 440 | 469 | 576 | 628 | 716 | 834 |
| VRPP 357 | 357 | 36.3 | 45.0 | 71.4 | 117 | 170 | 210 | 273 | 309 | 357 | 472 | 504 | 620 | 675 | 769 | 897 |
| VRPP 370 | 370 | 37.8 | 46.7 | 74.0 | 121 | 177 | 218 | 283 | 320 | 369 | 490 | 523 | 642 | 699 | 797 | 930 |
| VRPP 400 | 400 | 40.8 | 50.5 | 80.0 | 131 | 191 | 235 | 306 | 346 | 399 | 530 | 565 | 694 | 756 | 862 | 1005 |
| VRPP 426 | 426 | 43.5 | 53.7 | 85.2 | 139 | 203 | 251 | 326 | 369 | 426 | 564 | 602 | 740 | 805 | 918 | 1070 |
| VRPP 438 | 438 | 44.7 | 55.3 | 87.6 | 143 | 209 | 258 | 335 | 379 | 437 | 580 | 619 | 760 | 828 | 944 | 1101 |
| VRPP 476 | 476 | 48.6 | 60.0 | 95.2 | 156 | 227 | 280 | 364 | 412 | 474 | 630 | 672 | 826 | 900 | 1026 | 1196 |
| VRPP 498 | 498 | 50.8 | 62.9 | 99.6 | 163 | 238 | 293 | 381 | 431 | 497 | 660 | 703 | 865 | 941 | 1073 | 1251 |
| VRPP 530 | 530 | 54.1 | 66.9 | 106 | 173 | 253 | 312 | 406 | 459 | 528 | 702 | 749 | 920 | 1002 | 1142 | 1332 |
| VRPP 568 | 568 | 58.0 | 71.7 | 114 | 186 | 271 | 334 | 435 | 492 | 566 | 752 | 802 | 986 | 1074 | 1224 | 1427 |
| VRPP 580 | 580 | 59.2 | 73.2 | 116 | 190 | 277 | 341 | 444 | 502 | 578 | 768 | 819 | 1007 | 1096 | 1250 | 1457 |
| VRPP 624 | 624 | 63.7 | 78.8 | 125 | 204 | 298 | 367 | 477 | 540 | 622 | 826 | 881 | 1083 | 1180 | 1345 | 1568 |
| VRPP 664 | 664 | 67.8 | 83.8 | 133 | 217 | 317 | 391 | 508 | 575 | 662 | 879 | 938 | 1153 | 1255 | 1431 | 1668 |
| VRPP 710 | 710 | 72.4 | 89.6 | 142 | 232 | 339 | 418 | 543 | 615 | 708 | 940 | 1003 | 1233 | 1342 | 1530 | 1784 |
| VRPP 728 | 728 | 74.3 | 91.9 | 146 | 238 | 347 | 428 | 557 | 630 | 726 | 964 | 1028 | 1264 | 1376 | 1569 | 1829 |

Performance data

Performance after prolonged float charge of fully charged cells

Available amperes at +20 +/- 5 deg.C

End Voltage 1.05 V / Cell

| Cell Type | C5Ah | Hours | | | | | Minutes | | | | | Seconds | | | | |
|-----------|------|-------|------|------|------|------|---------|------|------|------|------|---------|------|-------|------|------|
| | | 10 | 8 | 5 | 3 | 2 | 90 | 60 | 45 | 30 | 10 | 5 | 60 | 30 | 10 | 1 |
| VRPP 8 | 8 | 0.80 | 1.00 | 1.58 | 2.53 | 3.54 | 4.32 | 5.44 | 5.93 | 6.45 | 8.51 | 9.86 | 13.3 | 15.0 | 17.5 | 22.1 |
| VRPP 12 | 12 | 1.20 | 1.50 | 2.37 | 3.80 | 5.31 | 6.49 | 8.16 | 8.89 | 9.68 | 12.8 | 14.8 | 19.9 | 22.4 | 26.3 | 33.1 |
| VRPP 16 | 16 | 1.60 | 2.00 | 3.16 | 5.06 | 7.08 | 8.65 | 10.9 | 11.9 | 12.9 | 17.0 | 19.7 | 26.5 | 29.9 | 35.0 | 44.2 |
| VRPP 18 | 18 | 1.80 | 2.25 | 3.55 | 5.70 | 7.96 | 9.73 | 12.2 | 13.3 | 14.5 | 19.1 | 22.2 | 29.9 | 33.6 | 39.4 | 49.7 |
| VRPP 24 | 24 | 2.40 | 3.00 | 4.73 | 7.59 | 10.6 | 13.0 | 16.3 | 17.8 | 19.4 | 25.5 | 29.6 | 39.8 | 44.9 | 52.5 | 66.3 |
| VRPP 27 | 27 | 2.70 | 3.38 | 5.33 | 8.54 | 11.9 | 14.6 | 18.4 | 20.0 | 21.8 | 28.7 | 33.3 | 44.8 | 50.5 | 59.1 | 74.6 |
| VRPP 32 | 32 | 3.20 | 4.00 | 6.31 | 10.1 | 14.2 | 17.3 | 21.8 | 23.7 | 25.8 | 34.0 | 39.5 | 53.1 | 59.8 | 70.0 | 88.4 |
| VRPP 36 | 36 | 3.60 | 4.50 | 7.10 | 11.4 | 15.9 | 19.5 | 24.5 | 26.7 | 29.0 | 38.3 | 44.4 | 59.7 | 67.3 | 78.8 | 99.4 |
| VRPP 40 | 40 | 4.10 | 5.00 | 7.89 | 12.7 | 17.7 | 21.6 | 27.2 | 29.6 | 32.3 | 42.6 | 49.3 | 66.3 | 74.8 | 87.5 | 111 |
| VRPP 45 | 45 | 4.50 | 5.63 | 8.88 | 14.2 | 19.9 | 24.3 | 30.6 | 33.3 | 36.3 | 47.9 | 55.5 | 74.6 | 84.1 | 98.5 | 124 |
| VRPP 50 | 50 | 5.04 | 6.24 | 9.92 | 16.1 | 22.9 | 26.9 | 32.7 | 36.3 | 42.0 | 52.6 | 58.6 | 74.8 | 80.3 | 89.8 | 105 |
| VRPP 57 | 57 | 5.74 | 7.12 | 11.3 | 18.3 | 26.1 | 30.7 | 37.3 | 41.4 | 47.9 | 60.0 | 66.8 | 85.3 | 91.5 | 102 | 120 |
| VRPP 66 | 66 | 6.65 | 8.24 | 13.1 | 21.2 | 30.3 | 35.6 | 43.1 | 48.0 | 55.5 | 69.5 | 77.4 | 98.7 | 105.9 | 118 | 139 |
| VRPP 71 | 71 | 7.15 | 8.86 | 14.1 | 22.8 | 32.6 | 38.3 | 46.3 | 51.6 | 59.7 | 74.8 | 83.2 | 106 | 114 | 127 | 149 |
| VRPP 76 | 76 | 7.65 | 9.49 | 15.1 | 24.4 | 34.9 | 40.9 | 49.7 | 55.2 | 63.9 | 80.0 | 89.1 | 114 | 122 | 136 | 159 |
| VRPP 82 | 82 | 8.26 | 10.2 | 16.3 | 26.4 | 37.6 | 44.2 | 53.6 | 59.6 | 68.9 | 86.3 | 96.1 | 123 | 132 | 147 | 172 |
| VRPP 89 | 89 | 8.96 | 11.1 | 17.7 | 28.6 | 40.8 | 48.0 | 58.2 | 64.7 | 74.8 | 93.7 | 104 | 133 | 143 | 160 | 187 |
| VRPP 95 | 95 | 9.57 | 11.9 | 18.9 | 30.5 | 43.6 | 51.2 | 61.9 | 69.0 | 79.8 | 100 | 111 | 142 | 152 | 171 | 199 |
| VRPP 103 | 103 | 10.4 | 12.9 | 20.4 | 33.1 | 47.2 | 55.5 | 67.3 | 74.9 | 86.6 | 108 | 121 | 154 | 165 | 185 | 216 |
| VRPP 111 | 111 | 11.2 | 13.9 | 22.0 | 35.7 | 50.9 | 59.8 | 72.5 | 80.7 | 93.3 | 117 | 130 | 166 | 178 | 199 | 233 |
| VRPP 119 | 119 | 12.0 | 14.9 | 23.6 | 38.3 | 54.6 | 64.2 | 77.6 | 86.5 | 100 | 125 | 140 | 178 | 191 | 214 | 249 |
| VRPP 133 | 133 | 13.4 | 16.6 | 26.4 | 42.8 | 61.0 | 71.7 | 86.9 | 96.7 | 112 | 140 | 156 | 199 | 213 | 239 | 279 |
| VRPP 142 | 142 | 14.3 | 17.7 | 28.2 | 45.7 | 65.1 | 76.5 | 92.6 | 103 | 119 | 150 | 167 | 212 | 228 | 255 | 298 |
| VRPP 155 | 155 | 15.6 | 19.4 | 30.8 | 49.8 | 71.1 | 83.5 | 101 | 113 | 130 | 163 | 182 | 232 | 249 | 278 | 325 |
| VRPP 166 | 166 | 16.7 | 20.7 | 33.0 | 53.4 | 76.1 | 89.5 | 108 | 121 | 139 | 175 | 195 | 248 | 266 | 298 | 348 |
| VRPP 178 | 178 | 17.9 | 22.2 | 35.3 | 57.2 | 81.7 | 95.9 | 116 | 129 | 150 | 187 | 209 | 266 | 286 | 320 | 374 |
| VRPP 190 | 190 | 19.1 | 23.7 | 37.7 | 61.1 | 87.2 | 102 | 124 | 138 | 160 | 200 | 223 | 284 | 305 | 341 | 398 |
| VRPP 206 | 206 | 20.7 | 25.7 | 40.9 | 66.2 | 94.5 | 111 | 135 | 150 | 173 | 217 | 242 | 308 | 331 | 370 | 432 |
| VRPP 222 | 222 | 22.4 | 27.7 | 44.0 | 71.4 | 102 | 120 | 145 | 161 | 187 | 234 | 260 | 332 | 356 | 399 | 466 |
| VRPP 238 | 238 | 24.0 | 29.7 | 47.2 | 76.5 | 109 | 128 | 155 | 173 | 200 | 251 | 279 | 356 | 382 | 427 | 499 |
| VRPP 266 | 266 | 26.8 | 33.2 | 52.8 | 85.5 | 122 | 143 | 174 | 193 | 224 | 280 | 312 | 398 | 427 | 478 | 558 |
| VRPP 285 | 285 | 28.7 | 35.6 | 56.6 | 91.6 | 131 | 154 | 186 | 207 | 239 | 300 | 334 | 426 | 457 | 512 | 597 |
| VRPP 310 | 310 | 31.2 | 38.7 | 61.5 | 99.7 | 142 | 167 | 203 | 225 | 261 | 326 | 363 | 464 | 498 | 557 | 651 |
| VRPP 332 | 332 | 33.4 | 41.4 | 65.9 | 107 | 152 | 179 | 217 | 241 | 279 | 349 | 389 | 497 | 533 | 596 | 697 |
| VRPP 357 | 357 | 36.0 | 44.6 | 70.8 | 115 | 164 | 192 | 233 | 259 | 300 | 376 | 420 | 534 | 573 | 641 | 748 |
| VRPP 370 | 370 | 37.3 | 46.2 | 73.4 | 119 | 170 | 199 | 242 | 269 | 311 | 389 | 434 | 553 | 594 | 664 | 776 |
| VRPP 400 | 400 | 40.3 | 49.9 | 79.4 | 129 | 183 | 216 | 261 | 291 | 336 | 421 | 469 | 598 | 642 | 718 | 839 |
| VRPP 426 | 426 | 42.9 | 53.2 | 84.6 | 137 | 195 | 230 | 278 | 310 | 358 | 449 | 501 | 639 | 684 | 765 | 894 |
| VRPP 438 | 438 | 44.1 | 54.7 | 86.9 | 141 | 201 | 236 | 286 | 318 | 368 | 461 | 513 | 655 | 703 | 786 | 919 |
| VRPP 476 | 476 | 47.9 | 59.4 | 94.4 | 153 | 218 | 256 | 310 | 346 | 400 | 502 | 558 | 712 | 764 | 855 | 998 |
| VRPP 498 | 498 | 50.2 | 62.2 | 98.8 | 160 | 228 | 268 | 325 | 362 | 418 | 524 | 584 | 745 | 799 | 894 | 1045 |
| VRPP 530 | 530 | 53.4 | 66.2 | 105 | 170 | 243 | 286 | 346 | 385 | 445 | 558 | 621 | 793 | 851 | 952 | 1112 |
| VRPP 568 | 568 | 57.2 | 70.9 | 113 | 183 | 261 | 306 | 371 | 413 | 477 | 598 | 666 | 850 | 912 | 1020 | 1192 |
| VRPP 580 | 580 | 58.4 | 72.4 | 115 | 186 | 266 | 313 | 379 | 422 | 487 | 611 | 680 | 868 | 931 | 1041 | 1217 |
| VRPP 624 | 624 | 62.8 | 77.9 | 124 | 201 | 286 | 336 | 408 | 453 | 524 | 657 | 732 | 933 | 1002 | 1120 | 1310 |
| VRPP 664 | 664 | 66.9 | 82.9 | 132 | 214 | 305 | 358 | 434 | 483 | 558 | 699 | 778 | 993 | 1066 | 1192 | 1393 |
| VRPP 710 | 710 | 71.5 | 88.6 | 141 | 228 | 326 | 383 | 464 | 516 | 597 | 747 | 832 | 1062 | 1140 | 1275 | 1490 |
| VRPP 728 | 728 | 73.3 | 90.9 | 144 | 234 | 334 | 392 | 476 | 529 | 612 | 766 | 853 | 1089 | 1169 | 1307 | 1528 |

Performance data

Performance after prolonged float charge of fully charged cells

Available amperes at +20 +/- 5 deg.C

End Voltage 1.10 V / Cell

| Cell Type | C ₅ Ah | Hours | | | | | Minutes | | | | | Seconds | | | | |
|-----------|-------------------|-------|------|------|------|------|---------|------|------|------|------|---------|------|------|------|------|
| | | 10 | 8 | 5 | 3 | 2 | 90 | 60 | 45 | 30 | 10 | 5 | 60 | 30 | 10 | 1 |
| VRPP 8 | 8 | 0.80 | 1.00 | 1.55 | 2.27 | 2.97 | 3.51 | 4.42 | 4.76 | 5.26 | 6.50 | 7.56 | 10.6 | 11.9 | 14.1 | 17.9 |
| VRPP 12 | 12 | 1.20 | 1.50 | 2.33 | 3.41 | 4.46 | 5.26 | 6.63 | 7.14 | 7.89 | 9.76 | 11.3 | 15.8 | 17.9 | 21.2 | 26.8 |
| VRPP 16 | 16 | 1.60 | 2.00 | 3.10 | 4.55 | 5.95 | 7.02 | 8.84 | 9.52 | 10.5 | 13.0 | 15.1 | 21.1 | 23.8 | 28.2 | 35.7 |
| VRPP 18 | 18 | 1.80 | 2.24 | 3.49 | 5.11 | 6.69 | 7.89 | 9.94 | 10.7 | 11.8 | 14.6 | 17.0 | 23.7 | 26.8 | 31.7 | 40.2 |
| VRPP 24 | 24 | 2.40 | 2.99 | 4.65 | 6.82 | 8.92 | 10.5 | 13.3 | 14.3 | 15.8 | 19.5 | 22.7 | 31.7 | 35.7 | 42.3 | 53.6 |
| VRPP 27 | 27 | 2.70 | 3.37 | 5.23 | 7.67 | 10.0 | 11.8 | 14.9 | 16.1 | 17.8 | 22.0 | 25.5 | 35.6 | 40.2 | 47.6 | 60.3 |
| VRPP 32 | 32 | 3.20 | 3.99 | 6.20 | 9.09 | 11.9 | 14.0 | 17.7 | 19.0 | 21.1 | 26.0 | 30.2 | 42.2 | 47.6 | 56.4 | 71.4 |
| VRPP 36 | 36 | 3.60 | 4.49 | 6.98 | 10.2 | 13.4 | 15.8 | 19.9 | 21.4 | 23.7 | 29.3 | 34.0 | 47.5 | 53.6 | 63.5 | 80.4 |
| VRPP 40 | 40 | 4.00 | 4.99 | 7.75 | 11.4 | 14.9 | 17.6 | 22.1 | 23.8 | 26.4 | 32.5 | 37.8 | 52.8 | 59.5 | 70.5 | 89.3 |
| VRPP 45 | 45 | 4.50 | 5.61 | 8.72 | 12.8 | 16.7 | 19.7 | 24.9 | 26.8 | 29.6 | 36.6 | 42.5 | 59.4 | 67.0 | 79.4 | 100 |
| VRPP 50 | 50 | 5.00 | 6.20 | 9.71 | 15.1 | 20.5 | 23.6 | 27.6 | 30.1 | 33.2 | 41.0 | 45.5 | 58.6 | 65.4 | 71.8 | 78.4 |
| VRPP 57 | 57 | 5.70 | 7.06 | 11.1 | 17.2 | 23.3 | 26.9 | 31.5 | 34.3 | 37.8 | 46.7 | 51.8 | 66.8 | 74.5 | 81.9 | 89.3 |
| VRPP 66 | 66 | 6.60 | 8.18 | 12.8 | 20.0 | 27.0 | 31.1 | 36.5 | 39.7 | 43.8 | 54.1 | 60.0 | 77.4 | 86.3 | 94.8 | 103 |
| VRPP 71 | 71 | 7.10 | 8.80 | 13.8 | 21.5 | 29.1 | 33.5 | 39.2 | 42.7 | 47.2 | 58.3 | 64.6 | 83.2 | 92.8 | 102 | 111 |
| VRPP 76 | 76 | 7.60 | 9.42 | 14.8 | 23.0 | 31.1 | 35.8 | 42.0 | 45.7 | 50.5 | 62.3 | 69.1 | 89.1 | 99.3 | 109 | 119 |
| VRPP 82 | 82 | 8.20 | 10.2 | 15.9 | 24.8 | 33.6 | 38.7 | 45.3 | 49.3 | 54.4 | 67.2 | 74.5 | 96.1 | 107 | 118 | 129 |
| VRPP 89 | 89 | 8.90 | 11.0 | 17.3 | 26.9 | 36.4 | 42.0 | 49.2 | 53.5 | 59.1 | 73.0 | 80.9 | 104 | 116 | 128 | 139 |
| VRPP 95 | 95 | 9.50 | 11.8 | 18.4 | 28.7 | 38.9 | 44.8 | 52.4 | 57.1 | 63.1 | 78.0 | 86.4 | 111 | 124 | 136 | 149 |
| VRPP 103 | 103 | 10.3 | 12.8 | 20.0 | 31.2 | 42.2 | 48.6 | 56.9 | 61.9 | 68.4 | 84.4 | 93.6 | 121 | 135 | 148 | 161 |
| VRPP 111 | 111 | 11.1 | 13.8 | 21.6 | 33.6 | 45.5 | 52.4 | 61.3 | 66.7 | 73.7 | 91.0 | 101 | 130 | 145 | 159 | 174 |
| VRPP 119 | 119 | 11.9 | 14.7 | 23.1 | 36.0 | 48.7 | 56.1 | 65.6 | 71.6 | 79.1 | 97.7 | 108 | 140 | 156 | 171 | 187 |
| VRPP 133 | 133 | 13.3 | 16.5 | 25.8 | 40.2 | 54.5 | 62.7 | 73.5 | 80.0 | 88.3 | 109 | 121 | 156 | 174 | 191 | 208 |
| VRPP 142 | 142 | 14.2 | 17.6 | 27.6 | 43.0 | 58.1 | 67.0 | 78.3 | 85.4 | 94.3 | 117 | 129 | 166 | 186 | 204 | 223 |
| VRPP 155 | 155 | 15.5 | 19.2 | 30.1 | 46.9 | 63.5 | 73.1 | 85.6 | 93.2 | 103 | 127 | 141 | 182 | 203 | 223 | 243 |
| VRPP 166 | 166 | 16.6 | 20.6 | 32.2 | 50.3 | 68.0 | 78.3 | 91.6 | 99.8 | 110 | 136 | 151 | 195 | 217 | 239 | 260 |
| VRPP 178 | 178 | 17.8 | 22.1 | 34.6 | 53.9 | 72.9 | 84.0 | 98.3 | 107 | 118 | 146 | 162 | 209 | 233 | 256 | 279 |
| VRPP 190 | 190 | 19.0 | 23.5 | 36.9 | 57.5 | 77.7 | 89.6 | 105 | 114 | 126 | 156 | 173 | 223 | 248 | 273 | 298 |
| VRPP 206 | 206 | 20.6 | 25.5 | 40.0 | 62.3 | 84.4 | 97.2 | 114 | 124 | 137 | 169 | 187 | 242 | 269 | 296 | 323 |
| VRPP 222 | 222 | 22.2 | 27.5 | 43.1 | 67.2 | 90.9 | 105 | 123 | 133 | 147 | 182 | 202 | 260 | 290 | 319 | 348 |
| VRPP 238 | 238 | 23.8 | 29.5 | 46.2 | 72.1 | 97.4 | 112 | 131 | 143 | 158 | 195 | 217 | 279 | 311 | 342 | 373 |
| VRPP 266 | 266 | 26.6 | 33.0 | 51.7 | 80.5 | 109 | 125 | 147 | 160 | 177 | 218 | 242 | 312 | 348 | 382 | 417 |
| VRPP 285 | 285 | 28.5 | 35.3 | 55.3 | 86.3 | 117 | 134 | 157 | 171 | 189 | 234 | 259 | 334 | 373 | 409 | 447 |
| VRPP 310 | 310 | 31.0 | 38.4 | 60.2 | 93.8 | 127 | 146 | 171 | 186 | 206 | 254 | 282 | 363 | 405 | 445 | 486 |
| VRPP 332 | 332 | 33.2 | 41.1 | 64.5 | 100 | 136 | 157 | 183 | 200 | 220 | 272 | 302 | 389 | 434 | 477 | 520 |
| VRPP 357 | 357 | 35.7 | 44.2 | 69.3 | 108 | 146 | 168 | 197 | 215 | 237 | 293 | 325 | 419 | 467 | 513 | 560 |
| VRPP 370 | 370 | 37.0 | 45.8 | 71.8 | 112 | 152 | 175 | 204 | 222 | 246 | 303 | 336 | 434 | 484 | 532 | 580 |
| VRPP 400 | 400 | 40.0 | 49.6 | 77.7 | 121 | 164 | 189 | 221 | 241 | 266 | 328 | 364 | 469 | 523 | 575 | 627 |
| VRPP 426 | 426 | 42.6 | 52.8 | 82.7 | 129 | 174 | 201 | 235 | 256 | 283 | 351 | 387 | 499 | 557 | 612 | 668 |
| VRPP 438 | 438 | 43.8 | 54.3 | 85.0 | 133 | 179 | 207 | 242 | 263 | 291 | 359 | 398 | 513 | 573 | 629 | 687 |
| VRPP 476 | 476 | 47.6 | 59.0 | 92.4 | 144 | 195 | 225 | 262 | 286 | 316 | 390 | 434 | 558 | 622 | 684 | 746 |
| VRPP 498 | 498 | 49.8 | 61.7 | 96.7 | 151 | 204 | 235 | 275 | 299 | 331 | 408 | 453 | 584 | 651 | 716 | 781 |
| VRPP 530 | 530 | 53.0 | 65.7 | 103 | 160 | 217 | 250 | 293 | 319 | 352 | 434 | 482 | 621 | 693 | 761 | 831 |
| VRPP 568 | 568 | 56.8 | 70.4 | 110 | 172 | 233 | 268 | 314 | 342 | 377 | 466 | 516 | 666 | 742 | 816 | 890 |
| VRPP 580 | 580 | 58.0 | 71.9 | 113 | 175 | 238 | 274 | 320 | 349 | 385 | 475 | 527 | 680 | 758 | 833 | 909 |
| VRPP 624 | 624 | 62.4 | 77.3 | 121 | 189 | 256 | 294 | 345 | 375 | 414 | 511 | 567 | 732 | 816 | 897 | 978 |
| VRPP 664 | 664 | 66.4 | 82.3 | 129 | 201 | 272 | 313 | 367 | 399 | 441 | 544 | 604 | 778 | 868 | 954 | 1041 |
| VRPP 710 | 710 | 71.0 | 88.0 | 138 | 215 | 291 | 335 | 392 | 427 | 471 | 582 | 645 | 832 | 928 | 1020 | 1113 |
| VRPP 728 | 728 | 72.8 | 90.2 | 141 | 220 | 298 | 343 | 402 | 438 | 483 | 597 | 662 | 853 | 952 | 1046 | 1141 |

Performance data

Performance after prolonged float charge of fully charged cells

Available amperes at +20 +/- 5 deg.C

End Voltage 1.14 V / Cell

| Cell Type | C ₅ Ah | Hours | | | | | Minutes | | | | | Seconds | | | | |
|-----------|-------------------|-------|------|------|------|------|---------|------|------|------|------|---------|------|------|------|------|
| | | 10 | 8 | 5 | 3 | 2 | 90 | 60 | 45 | 30 | 10 | 5 | 60 | 30 | 10 | 1 |
| VRPP 8 | 8 | 0.78 | 0.95 | 1.52 | 1.98 | 2.40 | 2.75 | 3.36 | 3.67 | 4.08 | 5.26 | 6.15 | 8.33 | 9.70 | 11.6 | 15.1 |
| VRPP 12 | 12 | 1.17 | 1.43 | 2.28 | 2.96 | 3.60 | 4.12 | 5.04 | 5.50 | 6.12 | 7.89 | 9.23 | 12.5 | 14.5 | 17.3 | 22.7 |
| VRPP 16 | 16 | 1.55 | 1.90 | 3.04 | 3.95 | 4.80 | 5.50 | 6.72 | 7.34 | 8.16 | 10.5 | 12.3 | 16.7 | 19.4 | 23.1 | 30.2 |
| VRPP 18 | 18 | 1.75 | 2.14 | 3.42 | 4.44 | 5.41 | 6.19 | 7.56 | 8.26 | 9.18 | 11.8 | 13.8 | 18.8 | 21.8 | 26.0 | 34.0 |
| VRPP 24 | 24 | 2.33 | 2.86 | 4.56 | 5.93 | 7.21 | 8.25 | 10.1 | 11.0 | 12.2 | 15.8 | 18.5 | 25.0 | 29.1 | 34.7 | 45.4 |
| VRPP 27 | 27 | 2.62 | 3.21 | 5.13 | 6.67 | 8.11 | 9.28 | 11.3 | 12.4 | 13.8 | 17.8 | 20.8 | 28.1 | 32.7 | 39.0 | 51.0 |
| VRPP 32 | 32 | 3.11 | 3.81 | 6.08 | 7.90 | 9.61 | 11.0 | 13.4 | 14.7 | 16.3 | 21.1 | 24.6 | 33.3 | 38.8 | 46.2 | 60.5 |
| VRPP 36 | 36 | 3.50 | 4.29 | 6.84 | 8.89 | 10.8 | 12.4 | 15.1 | 16.5 | 18.4 | 23.7 | 27.7 | 37.5 | 43.6 | 52.0 | 68.1 |
| VRPP 40 | 40 | 3.88 | 4.76 | 7.60 | 9.88 | 12.0 | 13.7 | 16.8 | 18.3 | 20.4 | 26.3 | 30.8 | 41.7 | 48.5 | 57.8 | 75.6 |
| VRPP 45 | 45 | 4.37 | 5.36 | 8.56 | 11.1 | 13.5 | 15.5 | 18.9 | 20.6 | 23.0 | 29.6 | 34.6 | 46.9 | 54.5 | 65.0 | 85.1 |
| VRPP 50 | 50 | 4.85 | 6.00 | 9.49 | 13.8 | 15.5 | 16.7 | 19.1 | 20.1 | 23.2 | 29.4 | 34.0 | 44.2 | 47.9 | 53.9 | 61.0 |
| VRPP 57 | 57 | 5.53 | 6.84 | 10.8 | 15.7 | 17.6 | 19.0 | 21.8 | 22.9 | 26.5 | 33.5 | 38.8 | 50.4 | 54.6 | 61.4 | 69.5 |
| VRPP 66 | 66 | 6.41 | 7.92 | 12.5 | 18.2 | 20.4 | 22.0 | 25.2 | 26.5 | 30.6 | 38.8 | 44.9 | 58.4 | 63.2 | 71.1 | 80.5 |
| VRPP 71 | 71 | 6.89 | 8.52 | 13.5 | 19.5 | 22.0 | 23.7 | 27.1 | 28.5 | 33.0 | 41.8 | 48.5 | 62.9 | 68.0 | 76.5 | 86.7 |
| VRPP 76 | 76 | 7.38 | 9.12 | 14.4 | 20.9 | 23.5 | 25.3 | 29.1 | 30.5 | 35.3 | 44.7 | 51.7 | 67.3 | 72.8 | 81.9 | 92.7 |
| VRPP 82 | 82 | 7.96 | 9.84 | 15.6 | 22.6 | 25.4 | 27.3 | 31.4 | 32.9 | 38.1 | 48.2 | 55.8 | 72.6 | 78.5 | 88.4 | 100 |
| VRPP 89 | 89 | 8.64 | 10.7 | 16.9 | 24.5 | 27.6 | 29.7 | 34.0 | 35.7 | 41.3 | 52.4 | 60.6 | 78.8 | 85.2 | 95.9 | 109 |
| VRPP 95 | 95 | 9.22 | 11.4 | 18.0 | 26.1 | 29.4 | 31.7 | 36.3 | 38.2 | 44.1 | 55.9 | 64.8 | 84.2 | 91.0 | 102 | 116 |
| VRPP 103 | 103 | 10.0 | 12.4 | 19.5 | 28.3 | 31.9 | 34.3 | 39.4 | 41.4 | 47.8 | 60.6 | 70.1 | 91.2 | 98.7 | 111 | 126 |
| VRPP 111 | 111 | 10.8 | 13.3 | 21.1 | 30.5 | 34.4 | 37.0 | 42.4 | 44.6 | 51.5 | 65.3 | 75.6 | 98.2 | 106 | 120 | 135 |
| VRPP 119 | 119 | 11.6 | 14.3 | 22.6 | 32.7 | 36.8 | 39.7 | 45.5 | 47.8 | 55.2 | 70.0 | 81.2 | 105 | 114 | 128 | 145 |
| VRPP 133 | 133 | 12.9 | 16.0 | 25.2 | 36.6 | 41.2 | 44.3 | 50.9 | 53.4 | 61.7 | 78.2 | 90.5 | 118 | 127 | 143 | 162 |
| VRPP 142 | 142 | 13.8 | 17.0 | 27.0 | 39.0 | 44.0 | 47.3 | 54.3 | 57.0 | 65.9 | 83.5 | 96.9 | 126 | 136 | 153 | 173 |
| VRPP 155 | 155 | 15.0 | 18.6 | 29.4 | 42.7 | 48.0 | 51.7 | 59.3 | 62.2 | 72.0 | 91.2 | 106 | 137 | 148 | 167 | 189 |
| VRPP 166 | 166 | 16.1 | 19.9 | 31.5 | 45.6 | 51.4 | 55.3 | 63.5 | 66.7 | 77.1 | 97.6 | 113 | 147 | 159 | 179 | 203 |
| VRPP 178 | 178 | 17.3 | 21.4 | 33.8 | 49.0 | 55.1 | 59.3 | 68.1 | 71.5 | 82.6 | 105 | 121 | 158 | 170 | 192 | 217 |
| VRPP 190 | 190 | 18.4 | 22.8 | 36.1 | 52.2 | 58.8 | 63.3 | 72.6 | 76.3 | 88.2 | 112 | 130 | 168 | 182 | 205 | 232 |
| VRPP 206 | 206 | 20.0 | 24.7 | 39.1 | 56.7 | 63.8 | 68.7 | 78.8 | 82.7 | 95.6 | 121 | 140 | 182 | 197 | 222 | 251 |
| VRPP 222 | 222 | 21.6 | 26.7 | 42.1 | 61.1 | 68.7 | 74.0 | 84.9 | 89.2 | 103 | 131 | 151 | 196 | 213 | 239 | 271 |
| VRPP 238 | 238 | 23.1 | 28.6 | 45.2 | 65.4 | 73.7 | 79.3 | 91.0 | 95.6 | 110 | 140 | 162 | 211 | 228 | 256 | 291 |
| VRPP 266 | 266 | 25.8 | 31.9 | 50.5 | 73.2 | 82.4 | 88.7 | 102 | 107 | 123 | 156 | 181 | 235 | 255 | 287 | 324 |
| VRPP 285 | 285 | 27.7 | 34.2 | 54.1 | 78.3 | 88.2 | 95.0 | 109 | 114 | 132 | 168 | 194 | 252 | 273 | 307 | 348 |
| VRPP 310 | 310 | 30.1 | 37.2 | 58.8 | 85.3 | 96.0 | 103 | 119 | 124 | 144 | 182 | 211 | 274 | 297 | 334 | 378 |
| VRPP 332 | 332 | 32.2 | 39.9 | 63.0 | 91.4 | 103 | 111 | 127 | 133 | 154 | 195 | 226 | 294 | 318 | 358 | 405 |
| VRPP 357 | 357 | 34.7 | 42.9 | 67.8 | 98.1 | 111 | 119 | 136 | 143 | 166 | 210 | 244 | 316 | 342 | 385 | 435 |
| VRPP 370 | 370 | 35.9 | 44.4 | 70.2 | 102 | 115 | 123 | 141 | 149 | 172 | 218 | 252 | 327 | 354 | 399 | 451 |
| VRPP 400 | 400 | 38.8 | 48.0 | 75.9 | 110 | 124 | 133 | 153 | 161 | 186 | 235 | 272 | 354 | 383 | 431 | 488 |
| VRPP 426 | 426 | 41.4 | 51.2 | 80.9 | 117 | 132 | 142 | 163 | 171 | 198 | 251 | 291 | 378 | 408 | 459 | 520 |
| VRPP 438 | 438 | 42.5 | 52.6 | 83.1 | 121 | 136 | 146 | 167 | 176 | 203 | 258 | 298 | 388 | 420 | 472 | 534 |
| VRPP 476 | 476 | 46.2 | 57.2 | 90.4 | 131 | 147 | 159 | 182 | 191 | 221 | 280 | 324 | 422 | 456 | 513 | 582 |
| VRPP 498 | 498 | 48.3 | 59.8 | 94.5 | 137 | 154 | 166 | 190 | 200 | 231 | 293 | 339 | 441 | 477 | 537 | 607 |
| VRPP 530 | 530 | 51.5 | 63.6 | 101 | 146 | 164 | 177 | 203 | 213 | 246 | 312 | 361 | 469 | 508 | 571 | 646 |
| VRPP 568 | 568 | 55.1 | 68.2 | 108 | 156 | 176 | 189 | 217 | 228 | 264 | 334 | 387 | 503 | 544 | 612 | 693 |
| VRPP 580 | 580 | 56.3 | 69.6 | 110 | 160 | 180 | 193 | 222 | 233 | 269 | 341 | 395 | 513 | 556 | 625 | 707 |
| VRPP 624 | 624 | 60.6 | 74.9 | 118 | 172 | 193 | 208 | 239 | 251 | 290 | 367 | 425 | 552 | 598 | 672 | 761 |
| VRPP 664 | 664 | 64.5 | 79.7 | 126 | 183 | 206 | 221 | 254 | 267 | 308 | 391 | 452 | 588 | 636 | 716 | 810 |
| VRPP 710 | 710 | 68.9 | 85.2 | 135 | 195 | 220 | 237 | 271 | 285 | 330 | 418 | 483 | 628 | 680 | 765 | 866 |
| VRPP 728 | 728 | 70.7 | 87.4 | 138 | 200 | 225 | 243 | 278 | 292 | 338 | 428 | 496 | 644 | 697 | 784 | 888 |

Performance data

Performance after prolonged float charge of fully charged cells

Available watts at +20 +/- 5 deg.C

End Voltage 1.00 V / Cell

| Cell Type | C5Ah | Hours | | | | | Minutes | | | | | Seconds | | | | |
|-----------|------|-------|------|------|------|------|---------|------|------|------|------|---------|------|------|------|------|
| | | 10 | 8 | 5 | 3 | 2 | 90 | 60 | 45 | 30 | 10 | 5 | 60 | 30 | 10 | 1 |
| VRPP 8 | 8 | 0.95 | 1.18 | 1.87 | 2.82 | 4.02 | 4.94 | 6.31 | 7.05 | 8.11 | 10.9 | 12.2 | 16.2 | 17.9 | 21.1 | 25.5 |
| VRPP 12 | 12 | 1.43 | 1.77 | 2.80 | 4.23 | 6.03 | 7.41 | 9.47 | 10.6 | 12.2 | 16.4 | 18.4 | 24.2 | 26.8 | 31.6 | 38.2 |
| VRPP 16 | 16 | 1.90 | 2.36 | 3.73 | 5.64 | 8.04 | 9.88 | 12.6 | 14.1 | 16.2 | 21.8 | 24.5 | 32.3 | 35.7 | 42.2 | 51.0 |
| VRPP 18 | 18 | 2.14 | 2.66 | 4.20 | 6.34 | 9.04 | 11.1 | 14.2 | 15.9 | 18.3 | 24.6 | 27.5 | 36.4 | 40.2 | 47.4 | 57.3 |
| VRPP 24 | 24 | 2.86 | 3.55 | 5.60 | 8.45 | 12.1 | 14.8 | 18.9 | 21.2 | 24.3 | 32.8 | 36.7 | 48.5 | 53.6 | 63.2 | 76.5 |
| VRPP 27 | 27 | 3.21 | 3.98 | 6.30 | 9.51 | 13.6 | 16.7 | 21.3 | 23.8 | 27.4 | 36.8 | 41.3 | 54.5 | 60.3 | 71.1 | 86.0 |
| VRPP 32 | 32 | 3.81 | 4.73 | 7.47 | 11.3 | 16.1 | 19.8 | 25.2 | 28.2 | 32.4 | 43.7 | 49.0 | 64.6 | 71.4 | 84.3 | 102 |
| VRPP 36 | 36 | 4.28 | 5.32 | 8.40 | 12.7 | 18.1 | 22.2 | 28.4 | 31.7 | 36.5 | 49.1 | 55.1 | 72.7 | 80.4 | 94.9 | 115 |
| VRPP 40 | 40 | 4.76 | 5.91 | 9.34 | 14.1 | 20.1 | 24.7 | 31.6 | 35.3 | 40.6 | 54.6 | 61.2 | 80.8 | 89.3 | 105 | 128 |
| VRPP 45 | 45 | 5.36 | 6.64 | 10.5 | 15.9 | 22.6 | 27.8 | 35.5 | 39.7 | 45.6 | 61.4 | 68.8 | 90.9 | 100 | 119 | 143 |
| VRPP 50 | 50 | 6.07 | 7.46 | 11.7 | 18.0 | 25.4 | 30.9 | 39.4 | 44.3 | 50.5 | 66.4 | 70.6 | 86.8 | 94.5 | 108 | 126 |
| VRPP 57 | 57 | 6.92 | 8.51 | 13.3 | 20.5 | 29.0 | 35.2 | 45.0 | 50.5 | 57.6 | 75.7 | 80.5 | 99.0 | 108 | 123 | 143 |
| VRPP 66 | 66 | 8.01 | 9.85 | 15.4 | 23.7 | 33.6 | 40.8 | 52.1 | 58.4 | 66.7 | 87.7 | 93.2 | 115 | 125 | 142 | 166 |
| VRPP 71 | 71 | 8.62 | 10.6 | 16.6 | 25.5 | 36.1 | 43.9 | 56.0 | 62.9 | 71.8 | 94.3 | 100 | 123 | 134 | 153 | 178 |
| VRPP 76 | 76 | 9.23 | 11.3 | 17.7 | 27.3 | 38.6 | 46.9 | 60.0 | 67.3 | 76.8 | 101 | 107 | 132 | 144 | 164 | 191 |
| VRPP 82 | 82 | 9.96 | 12.2 | 19.1 | 29.5 | 41.7 | 50.6 | 64.7 | 72.6 | 82.9 | 109 | 116 | 142 | 155 | 177 | 206 |
| VRPP 89 | 89 | 10.8 | 13.3 | 20.8 | 32.0 | 45.2 | 55.0 | 70.2 | 78.8 | 90.0 | 118 | 126 | 155 | 168 | 192 | 224 |
| VRPP 95 | 95 | 11.5 | 14.2 | 22.2 | 34.1 | 48.3 | 58.7 | 74.9 | 84.1 | 96.0 | 126 | 134 | 165 | 180 | 205 | 239 |
| VRPP 103 | 103 | 12.5 | 15.4 | 24.0 | 37.0 | 52.4 | 63.6 | 81.2 | 91.2 | 104 | 137 | 145 | 179 | 195 | 222 | 259 |
| VRPP 111 | 111 | 13.5 | 16.6 | 25.9 | 39.9 | 56.4 | 68.6 | 87.6 | 98.3 | 112 | 147 | 157 | 193 | 210 | 239 | 279 |
| VRPP 119 | 119 | 14.5 | 17.8 | 27.8 | 42.7 | 60.5 | 73.5 | 93.9 | 105 | 120 | 158 | 168 | 207 | 225 | 256 | 299 |
| VRPP 133 | 133 | 16.2 | 19.8 | 31.0 | 47.8 | 67.6 | 82.1 | 105 | 118 | 134 | 177 | 188 | 231 | 251 | 287 | 334 |
| VRPP 142 | 142 | 17.2 | 21.2 | 33.1 | 51.0 | 72.2 | 87.7 | 112 | 126 | 144 | 189 | 201 | 247 | 268 | 306 | 357 |
| VRPP 155 | 155 | 18.8 | 23.1 | 36.2 | 55.7 | 78.8 | 95.7 | 122 | 137 | 157 | 206 | 219 | 269 | 293 | 334 | 389 |
| VRPP 166 | 166 | 20.2 | 24.8 | 38.7 | 59.6 | 84.4 | 103 | 131 | 147 | 168 | 221 | 234 | 288 | 314 | 358 | 417 |
| VRPP 178 | 178 | 21.6 | 26.6 | 41.5 | 63.9 | 90.5 | 110 | 140 | 158 | 180 | 236 | 251 | 309 | 336 | 384 | 447 |
| VRPP 190 | 190 | 23.1 | 28.4 | 44.3 | 68.2 | 96.6 | 117 | 150 | 168 | 192 | 252 | 268 | 330 | 359 | 409 | 477 |
| VRPP 206 | 206 | 25.0 | 30.7 | 48.1 | 74.0 | 105 | 127 | 162 | 182 | 208 | 274 | 291 | 358 | 389 | 444 | 518 |
| VRPP 222 | 222 | 27.0 | 33.1 | 51.8 | 79.7 | 113 | 137 | 175 | 197 | 224 | 295 | 314 | 385 | 420 | 478 | 558 |
| VRPP 238 | 238 | 28.9 | 35.5 | 55.5 | 85.5 | 121 | 147 | 188 | 211 | 241 | 316 | 336 | 413 | 450 | 513 | 598 |
| VRPP 266 | 266 | 32.3 | 39.7 | 62.1 | 95.5 | 135 | 164 | 210 | 235 | 269 | 353 | 376 | 462 | 503 | 573 | 668 |
| VRPP 285 | 285 | 34.6 | 42.5 | 66.5 | 102 | 145 | 176 | 225 | 252 | 288 | 379 | 403 | 495 | 539 | 614 | 716 |
| VRPP 310 | 310 | 37.6 | 46.3 | 72.4 | 111 | 158 | 191 | 245 | 274 | 313 | 412 | 438 | 538 | 586 | 668 | 779 |
| VRPP 332 | 332 | 40.3 | 49.5 | 77.5 | 119 | 169 | 205 | 262 | 294 | 336 | 441 | 469 | 576 | 628 | 716 | 834 |
| VRPP 357 | 357 | 43.2 | 53.2 | 83.3 | 128 | 181 | 221 | 282 | 316 | 362 | 474 | 504 | 620 | 675 | 769 | 897 |
| VRPP 370 | 370 | 44.9 | 55.2 | 86.4 | 133 | 188 | 229 | 292 | 328 | 374 | 492 | 523 | 642 | 699 | 797 | 930 |
| VRPP 400 | 400 | 48.6 | 59.7 | 93.4 | 144 | 203 | 247 | 316 | 354 | 404 | 531 | 565 | 694 | 756 | 862 | 1005 |
| VRPP 426 | 426 | 51.7 | 63.5 | 99.4 | 153 | 217 | 263 | 336 | 377 | 432 | 566 | 602 | 740 | 805 | 918 | 1070 |
| VRPP 438 | 438 | 53.2 | 65.4 | 102 | 157 | 223 | 271 | 346 | 388 | 443 | 582 | 619 | 760 | 828 | 944 | 1101 |
| VRPP 476 | 476 | 57.8 | 70.9 | 111 | 171 | 242 | 294 | 375 | 421 | 481 | 632 | 672 | 826 | 900 | 1026 | 1196 |
| VRPP 498 | 498 | 60.5 | 74.3 | 116 | 179 | 253 | 308 | 393 | 441 | 503 | 662 | 703 | 865 | 941 | 1073 | 1251 |
| VRPP 530 | 530 | 64.4 | 79.1 | 124 | 190 | 269 | 327 | 418 | 469 | 536 | 704 | 749 | 920 | 1002 | 1142 | 1332 |
| VRPP 568 | 568 | 69.0 | 84.8 | 133 | 204 | 289 | 351 | 448 | 503 | 574 | 755 | 802 | 986 | 1074 | 1224 | 1427 |
| VRPP 580 | 580 | 70.4 | 86.6 | 135 | 208 | 295 | 358 | 458 | 513 | 586 | 771 | 819 | 1007 | 1096 | 1250 | 1457 |
| VRPP 624 | 624 | 75.8 | 93.1 | 146 | 224 | 317 | 385 | 492 | 552 | 631 | 829 | 881 | 1083 | 1180 | 1345 | 1568 |
| VRPP 664 | 664 | 80.6 | 99.1 | 155 | 238 | 338 | 410 | 524 | 588 | 671 | 882 | 938 | 1153 | 1255 | 1431 | 1668 |
| VRPP 710 | 710 | 86.2 | 106 | 166 | 255 | 361 | 439 | 560 | 629 | 718 | 943 | 1003 | 1233 | 1342 | 1530 | 1784 |
| VRPP 728 | 728 | 88.4 | 109 | 170 | 261 | 370 | 450 | 574 | 644 | 736 | 967 | 1028 | 1264 | 1376 | 1569 | 1829 |

Performance data

Performance after prolonged float charge of fully charged cells

Available watts at +20 +/- 5 deg.C

End Voltage 1.05 V / Cell

| Cell Type | C5Ah | Hours | | | | | Minutes | | | | | Seconds | | | | |
|-----------|------|-------|------|------|------|------|---------|------|------|------|------|---------|------|------|------|------|
| | | 10 | 8 | 5 | 3 | 2 | 90 | 60 | 45 | 30 | 10 | 5 | 60 | 30 | 10 | 1 |
| VRPP 8 | 8 | 0.95 | 1.19 | 1.85 | 2.84 | 3.89 | 4.69 | 5.84 | 6.32 | 6.84 | 8.96 | 10.4 | 13.9 | 15.7 | 18.4 | 23.2 |
| VRPP 12 | 12 | 1.43 | 1.78 | 2.77 | 4.26 | 5.83 | 7.04 | 8.76 | 9.48 | 10.3 | 13.4 | 15.5 | 20.9 | 23.6 | 27.6 | 34.8 |
| VRPP 16 | 16 | 1.91 | 2.37 | 3.70 | 5.68 | 7.77 | 9.38 | 11.7 | 12.6 | 13.7 | 17.9 | 20.7 | 27.9 | 31.4 | 36.8 | 46.4 |
| VRPP 18 | 18 | 2.15 | 2.67 | 4.16 | 6.39 | 8.75 | 10.6 | 13.1 | 14.2 | 15.4 | 20.2 | 23.3 | 31.3 | 35.3 | 41.4 | 52.2 |
| VRPP 24 | 24 | 2.86 | 3.56 | 5.55 | 8.52 | 11.7 | 14.1 | 17.5 | 19.0 | 20.5 | 26.9 | 31.1 | 41.8 | 47.1 | 55.1 | 69.6 |
| VRPP 27 | 27 | 3.22 | 4.00 | 6.24 | 9.59 | 13.1 | 15.8 | 19.7 | 21.3 | 23.1 | 30.2 | 35.0 | 47.0 | 53.0 | 62.0 | 78.3 |
| VRPP 32 | 32 | 3.82 | 4.74 | 7.39 | 11.4 | 15.5 | 18.8 | 23.4 | 25.3 | 27.4 | 35.8 | 41.4 | 55.7 | 62.8 | 73.5 | 92.8 |
| VRPP 36 | 36 | 4.29 | 5.33 | 8.32 | 12.8 | 17.5 | 21.1 | 26.3 | 28.4 | 30.8 | 40.3 | 46.6 | 62.7 | 70.7 | 82.7 | 104 |
| VRPP 40 | 40 | 4.89 | 5.93 | 9.24 | 14.2 | 19.4 | 23.5 | 29.2 | 31.6 | 34.2 | 44.8 | 51.8 | 69.7 | 78.5 | 91.9 | 117 |
| VRPP 45 | 45 | 5.37 | 6.67 | 10.4 | 16.0 | 21.9 | 26.4 | 32.8 | 35.6 | 38.5 | 50.4 | 58.3 | 78.4 | 88.3 | 103 | 131 |
| VRPP 50 | 50 | 6.01 | 7.40 | 11.6 | 18.0 | 25.2 | 29.2 | 35.1 | 38.8 | 44.5 | 55.4 | 61.5 | 78.5 | 84.3 | 94.3 | 110 |
| VRPP 57 | 57 | 6.85 | 8.43 | 13.2 | 20.6 | 28.7 | 33.3 | 40.0 | 44.2 | 50.8 | 63.2 | 70.2 | 89.5 | 96.1 | 107 | 126 |
| VRPP 66 | 66 | 7.93 | 9.76 | 15.3 | 23.8 | 33.2 | 38.6 | 46.3 | 51.2 | 58.8 | 73.2 | 81.2 | 104 | 111 | 124 | 145 |
| VRPP 71 | 71 | 8.53 | 10.5 | 16.5 | 25.6 | 35.8 | 41.5 | 49.7 | 55.0 | 63.2 | 78.8 | 87.4 | 112 | 120 | 134 | 156 |
| VRPP 76 | 76 | 9.13 | 11.2 | 17.7 | 27.4 | 38.3 | 44.4 | 53.3 | 58.9 | 67.7 | 84.2 | 93.6 | 119 | 128 | 143 | 167 |
| VRPP 82 | 82 | 9.85 | 12.1 | 19.1 | 29.6 | 41.3 | 47.9 | 57.5 | 63.6 | 73.0 | 90.9 | 101 | 129 | 138 | 155 | 181 |
| VRPP 89 | 89 | 10.7 | 13.2 | 20.7 | 32.1 | 44.8 | 52.0 | 62.4 | 69.0 | 79.3 | 98.6 | 110 | 140 | 150 | 168 | 196 |
| VRPP 95 | 95 | 11.4 | 14.1 | 22.1 | 34.3 | 47.8 | 55.5 | 66.5 | 73.6 | 84.6 | 105 | 117 | 149 | 160 | 179 | 209 |
| VRPP 103 | 103 | 12.4 | 15.2 | 23.9 | 37.2 | 51.9 | 60.2 | 72.2 | 79.8 | 91.7 | 114 | 127 | 162 | 174 | 194 | 227 |
| VRPP 111 | 111 | 13.3 | 16.4 | 25.8 | 40.0 | 55.9 | 64.9 | 77.8 | 86.0 | 98.9 | 123 | 137 | 174 | 187 | 209 | 245 |
| VRPP 119 | 119 | 14.3 | 17.6 | 27.7 | 42.9 | 59.9 | 69.6 | 83.2 | 92.2 | 106 | 132 | 146 | 187 | 201 | 224 | 262 |
| VRPP 133 | 133 | 16.0 | 19.7 | 30.9 | 48.0 | 67.0 | 77.8 | 93.3 | 103 | 118 | 147 | 164 | 209 | 224 | 251 | 293 |
| VRPP 142 | 142 | 17.1 | 21.0 | 33.0 | 51.2 | 71.5 | 83.1 | 99.3 | 110 | 126 | 158 | 175 | 223 | 239 | 268 | 313 |
| VRPP 155 | 155 | 18.6 | 22.9 | 36.0 | 55.9 | 78.1 | 90.6 | 109 | 120 | 138 | 172 | 191 | 243 | 261 | 292 | 342 |
| VRPP 166 | 166 | 19.9 | 24.6 | 38.6 | 59.9 | 83.6 | 97.1 | 116 | 129 | 148 | 184 | 204 | 261 | 280 | 313 | 366 |
| VRPP 178 | 178 | 21.4 | 26.3 | 41.4 | 64.2 | 89.7 | 104 | 125 | 138 | 159 | 197 | 219 | 280 | 300 | 336 | 392 |
| VRPP 190 | 190 | 22.8 | 28.1 | 44.2 | 68.5 | 95.7 | 111 | 133 | 147 | 169 | 211 | 234 | 298 | 320 | 358 | 418 |
| VRPP 206 | 206 | 24.7 | 30.5 | 47.9 | 74.3 | 104 | 120 | 144 | 160 | 183 | 228 | 254 | 324 | 347 | 388 | 454 |
| VRPP 222 | 222 | 26.7 | 32.8 | 51.6 | 80.1 | 112 | 130 | 156 | 172 | 198 | 246 | 273 | 349 | 374 | 418 | 489 |
| VRPP 238 | 238 | 28.6 | 35.2 | 55.3 | 85.9 | 120 | 139 | 166 | 184 | 212 | 264 | 293 | 374 | 401 | 449 | 524 |
| VRPP 266 | 266 | 32.0 | 39.4 | 61.8 | 96.0 | 134 | 156 | 187 | 206 | 237 | 295 | 327 | 418 | 448 | 501 | 586 |
| VRPP 285 | 285 | 34.2 | 42.2 | 66.3 | 103 | 144 | 167 | 200 | 221 | 254 | 316 | 351 | 448 | 480 | 537 | 627 |
| VRPP 310 | 310 | 37.2 | 45.9 | 72.1 | 112 | 156 | 181 | 217 | 240 | 276 | 344 | 382 | 487 | 522 | 584 | 683 |
| VRPP 332 | 332 | 39.9 | 49.1 | 77.2 | 120 | 167 | 194 | 233 | 257 | 296 | 368 | 409 | 521 | 560 | 626 | 732 |
| VRPP 357 | 357 | 42.9 | 52.8 | 83.0 | 129 | 180 | 209 | 250 | 277 | 318 | 396 | 441 | 561 | 602 | 673 | 786 |
| VRPP 370 | 370 | 44.5 | 54.7 | 86.0 | 133 | 186 | 216 | 259 | 287 | 330 | 410 | 455 | 581 | 624 | 697 | 815 |
| VRPP 400 | 400 | 48.1 | 59.2 | 93.0 | 144 | 201 | 234 | 281 | 310 | 356 | 443 | 492 | 628 | 674 | 754 | 881 |
| VRPP 426 | 426 | 51.2 | 63.0 | 99.1 | 154 | 215 | 249 | 299 | 330 | 379 | 473 | 526 | 671 | 718 | 803 | 939 |
| VRPP 438 | 438 | 52.6 | 64.8 | 102 | 158 | 221 | 256 | 307 | 339 | 390 | 485 | 539 | 688 | 738 | 826 | 965 |
| VRPP 476 | 476 | 57.2 | 70.4 | 111 | 172 | 240 | 278 | 333 | 369 | 424 | 528 | 586 | 748 | 802 | 897 | 1048 |
| VRPP 498 | 498 | 59.8 | 73.7 | 116 | 180 | 251 | 291 | 349 | 386 | 444 | 552 | 613 | 782 | 839 | 939 | 1097 |
| VRPP 530 | 530 | 63.7 | 78.4 | 123 | 191 | 267 | 310 | 372 | 411 | 472 | 587 | 652 | 832 | 893 | 999 | 1168 |
| VRPP 568 | 568 | 68.2 | 84.0 | 132 | 205 | 286 | 332 | 398 | 440 | 506 | 630 | 699 | 892 | 957 | 1071 | 1252 |
| VRPP 580 | 580 | 69.7 | 85.8 | 135 | 209 | 292 | 339 | 407 | 450 | 517 | 643 | 714 | 911 | 978 | 1093 | 1278 |
| VRPP 624 | 624 | 75.0 | 92.3 | 145 | 225 | 314 | 365 | 438 | 484 | 556 | 692 | 768 | 980 | 1052 | 1176 | 1375 |
| VRPP 664 | 664 | 79.8 | 98.2 | 154 | 240 | 334 | 388 | 466 | 515 | 591 | 736 | 817 | 1043 | 1119 | 1252 | 1463 |
| VRPP 710 | 710 | 85.3 | 105 | 165 | 256 | 358 | 415 | 498 | 550 | 632 | 787 | 874 | 1115 | 1197 | 1338 | 1565 |
| VRPP 728 | 728 | 87.5 | 108 | 169 | 263 | 367 | 426 | 511 | 564 | 648 | 807 | 896 | 1143 | 1227 | 1372 | 1604 |

Performance data

Performance after prolonged float charge of fully charged cells

Available watts at +20 +/- 5 deg.C

End Voltage 1.10 V / Cell

| Cell Type | C5Ah | Hours | | | | | Minutes | | | | | Seconds | | | | |
|-----------|------|-------|------|------|------|------|---------|------|------|------|------|---------|------|------|------|------|
| | | 10 | 8 | 5 | 3 | 2 | 90 | 60 | 45 | 30 | 10 | 5 | 60 | 30 | 10 | 1 |
| VRPP 8 | 8 | 0.96 | 1.18 | 1.82 | 2.60 | 3.36 | 3.94 | 4.92 | 5.29 | 5.82 | 7.16 | 8.32 | 11.6 | 13.1 | 15.5 | 19.6 |
| VRPP 12 | 12 | 1.43 | 1.78 | 2.73 | 3.90 | 5.04 | 5.91 | 7.39 | 7.93 | 8.74 | 10.7 | 12.5 | 17.4 | 19.6 | 23.3 | 29.5 |
| VRPP 16 | 16 | 1.91 | 2.37 | 3.65 | 5.20 | 6.72 | 7.87 | 9.85 | 10.6 | 11.6 | 14.3 | 16.6 | 23.2 | 26.2 | 31.0 | 39.3 |
| VRPP 18 | 18 | 2.15 | 2.66 | 4.10 | 5.86 | 7.56 | 8.86 | 11.1 | 11.9 | 13.1 | 16.1 | 18.7 | 26.1 | 29.5 | 34.9 | 44.2 |
| VRPP 24 | 24 | 2.87 | 3.55 | 5.47 | 7.81 | 10.1 | 11.8 | 14.8 | 15.9 | 17.5 | 21.5 | 25.0 | 34.8 | 39.3 | 46.6 | 58.9 |
| VRPP 27 | 27 | 3.22 | 4.00 | 6.15 | 8.78 | 11.3 | 13.3 | 16.6 | 17.8 | 19.7 | 24.2 | 28.1 | 39.2 | 44.2 | 52.4 | 66.3 |
| VRPP 32 | 32 | 3.82 | 4.74 | 7.29 | 10.4 | 13.4 | 15.7 | 19.7 | 21.2 | 23.3 | 28.7 | 33.3 | 46.4 | 52.4 | 62.1 | 78.6 |
| VRPP 36 | 36 | 4.30 | 5.33 | 8.20 | 11.7 | 15.1 | 17.7 | 22.2 | 23.8 | 26.2 | 32.2 | 37.4 | 52.2 | 58.9 | 69.8 | 88.4 |
| VRPP 40 | 40 | 4.78 | 5.92 | 9.12 | 13.0 | 16.8 | 19.7 | 24.6 | 26.4 | 29.2 | 35.8 | 41.6 | 58.0 | 65.5 | 77.6 | 98.2 |
| VRPP 45 | 45 | 5.37 | 6.66 | 10.3 | 14.6 | 18.9 | 22.1 | 27.7 | 29.7 | 32.8 | 40.3 | 46.8 | 65.3 | 73.7 | 87.3 | 110 |
| VRPP 50 | 50 | 5.97 | 7.35 | 11.4 | 17.3 | 23.1 | 26.5 | 30.8 | 33.4 | 36.7 | 45.1 | 50.0 | 64.5 | 71.9 | 79.0 | 86.2 |
| VRPP 57 | 57 | 6.81 | 8.38 | 13.0 | 19.7 | 26.4 | 30.2 | 35.1 | 38.1 | 41.9 | 51.5 | 57.0 | 73.5 | 82.0 | 90.1 | 98.3 |
| VRPP 66 | 66 | 7.88 | 9.71 | 15.1 | 22.9 | 30.5 | 34.9 | 40.6 | 44.1 | 48.5 | 59.6 | 66.0 | 85.1 | 94.9 | 104 | 114 |
| VRPP 71 | 71 | 8.48 | 10.4 | 16.2 | 24.6 | 32.9 | 37.6 | 43.7 | 47.4 | 52.2 | 64.2 | 71.1 | 91.6 | 102 | 112 | 122 |
| VRPP 76 | 76 | 9.07 | 11.2 | 17.4 | 26.3 | 35.2 | 40.2 | 46.8 | 50.8 | 55.8 | 68.6 | 76.0 | 98.0 | 109 | 120 | 131 |
| VRPP 82 | 82 | 9.79 | 12.1 | 18.7 | 28.4 | 37.9 | 43.4 | 50.5 | 54.8 | 60.2 | 74.0 | 82.0 | 106 | 118 | 130 | 141 |
| VRPP 89 | 89 | 10.6 | 13.1 | 20.3 | 30.8 | 41.2 | 47.1 | 54.8 | 59.4 | 65.4 | 80.4 | 89.0 | 115 | 128 | 141 | 153 |
| VRPP 95 | 95 | 11.3 | 14.0 | 21.7 | 32.9 | 44.0 | 50.3 | 58.3 | 63.4 | 69.8 | 85.9 | 95.0 | 123 | 137 | 150 | 164 |
| VRPP 103 | 103 | 12.3 | 15.2 | 23.5 | 35.7 | 47.7 | 54.5 | 63.4 | 68.8 | 75.7 | 93.0 | 103 | 133 | 148 | 163 | 178 |
| VRPP 111 | 111 | 13.3 | 16.3 | 25.3 | 38.5 | 51.4 | 58.7 | 68.3 | 74.1 | 81.6 | 100 | 111 | 143 | 160 | 175 | 191 |
| VRPP 119 | 119 | 14.2 | 17.5 | 27.2 | 41.2 | 55.1 | 63.0 | 73.1 | 79.5 | 87.5 | 108 | 119 | 153 | 171 | 188 | 205 |
| VRPP 133 | 133 | 15.9 | 19.6 | 30.4 | 46.1 | 61.5 | 70.4 | 81.9 | 88.8 | 97.7 | 120 | 133 | 172 | 191 | 210 | 229 |
| VRPP 142 | 142 | 17.0 | 20.9 | 32.4 | 49.2 | 65.7 | 75.2 | 87.2 | 94.8 | 104 | 129 | 142 | 183 | 204 | 224 | 245 |
| VRPP 155 | 155 | 18.5 | 22.8 | 35.4 | 53.7 | 71.7 | 82.0 | 95.4 | 104 | 114 | 140 | 155 | 200 | 223 | 245 | 267 |
| VRPP 166 | 166 | 19.8 | 24.4 | 37.9 | 57.5 | 76.8 | 87.9 | 102 | 111 | 122 | 150 | 166 | 214 | 239 | 262 | 286 |
| VRPP 178 | 178 | 21.3 | 26.2 | 40.6 | 61.7 | 82.4 | 94.2 | 110 | 119 | 131 | 161 | 178 | 230 | 256 | 281 | 307 |
| VRPP 190 | 190 | 22.7 | 27.9 | 43.4 | 65.8 | 87.8 | 101 | 117 | 127 | 140 | 172 | 190 | 245 | 273 | 300 | 328 |
| VRPP 206 | 206 | 24.6 | 30.3 | 47.0 | 71.4 | 95.3 | 109 | 127 | 138 | 151 | 186 | 206 | 266 | 296 | 326 | 355 |
| VRPP 222 | 222 | 26.5 | 32.7 | 50.7 | 76.9 | 103 | 117 | 137 | 148 | 163 | 200 | 222 | 286 | 319 | 351 | 383 |
| VRPP 238 | 238 | 28.4 | 35.0 | 54.3 | 82.5 | 110 | 126 | 146 | 159 | 175 | 215 | 238 | 307 | 342 | 376 | 410 |
| VRPP 266 | 266 | 31.8 | 39.1 | 60.7 | 92.2 | 123 | 141 | 164 | 178 | 195 | 240 | 266 | 343 | 382 | 420 | 459 |
| VRPP 285 | 285 | 34.0 | 41.9 | 65.1 | 98.8 | 132 | 151 | 175 | 190 | 209 | 257 | 285 | 368 | 410 | 450 | 491 |
| VRPP 310 | 310 | 37.0 | 45.6 | 70.8 | 107 | 143 | 164 | 191 | 207 | 228 | 280 | 310 | 400 | 446 | 490 | 534 |
| VRPP 332 | 332 | 39.6 | 48.8 | 75.8 | 115 | 154 | 176 | 204 | 222 | 244 | 300 | 332 | 428 | 477 | 525 | 572 |
| VRPP 357 | 357 | 42.6 | 52.5 | 81.5 | 124 | 165 | 189 | 220 | 238 | 262 | 322 | 357 | 460 | 513 | 564 | 616 |
| VRPP 370 | 370 | 44.2 | 54.4 | 84.5 | 128 | 171 | 196 | 228 | 247 | 272 | 334 | 370 | 477 | 532 | 585 | 638 |
| VRPP 400 | 400 | 47.8 | 58.8 | 91.3 | 139 | 185 | 212 | 246 | 267 | 294 | 361 | 400 | 516 | 575 | 632 | 690 |
| VRPP 426 | 426 | 50.9 | 62.7 | 97.3 | 148 | 197 | 225 | 262 | 284 | 313 | 387 | 426 | 549 | 613 | 673 | 734 |
| VRPP 438 | 438 | 52.3 | 64.4 | 100 | 152 | 203 | 232 | 270 | 292 | 322 | 395 | 438 | 565 | 630 | 692 | 755 |
| VRPP 476 | 476 | 56.8 | 70.0 | 109 | 165 | 220 | 252 | 292 | 318 | 350 | 430 | 478 | 614 | 684 | 752 | 821 |
| VRPP 498 | 498 | 59.5 | 73.2 | 114 | 173 | 230 | 264 | 307 | 333 | 366 | 450 | 498 | 642 | 716 | 787 | 859 |
| VRPP 530 | 530 | 63.3 | 78.0 | 121 | 184 | 245 | 281 | 326 | 354 | 389 | 479 | 530 | 683 | 762 | 838 | 914 |
| VRPP 568 | 568 | 67.8 | 83.5 | 130 | 197 | 263 | 301 | 350 | 379 | 417 | 513 | 568 | 732 | 817 | 898 | 979 |
| VRPP 580 | 580 | 69.3 | 85.3 | 132 | 201 | 268 | 307 | 357 | 387 | 426 | 524 | 580 | 748 | 834 | 917 | 1000 |
| VRPP 624 | 624 | 74.5 | 91.8 | 142 | 216 | 289 | 330 | 384 | 417 | 458 | 563 | 624 | 805 | 897 | 986 | 1076 |
| VRPP 664 | 664 | 79.3 | 97.7 | 152 | 230 | 307 | 351 | 409 | 443 | 488 | 600 | 664 | 856 | 955 | 1049 | 1145 |
| VRPP 710 | 710 | 84.8 | 104 | 162 | 246 | 329 | 376 | 437 | 474 | 522 | 641 | 710 | 916 | 1021 | 1122 | 1224 |
| VRPP 728 | 728 | 86.9 | 107 | 166 | 252 | 337 | 385 | 448 | 486 | 535 | 657 | 728 | 939 | 1047 | 1151 | 1255 |

Performance data

Performance after prolonged float charge of fully charged cells

Available watts at +20 +/- 5 deg.C

End Voltage 1.14 V / Cell

| Cell Type | C5Ah | Hours | | | | | Minutes | | | | | Seconds | | | | |
|-----------|------|-------|------|------|------|------|---------|------|------|------|------|---------|------|------|------|------|
| | | 10 | 8 | 5 | 3 | 2 | 90 | 60 | 45 | 30 | 10 | 5 | 60 | 30 | 10 | 1 |
| VRPP 8 | 8 | 0.93 | 1.13 | 1.79 | 2.30 | 2.78 | 3.17 | 3.86 | 4.20 | 4.67 | 6.00 | 7.02 | 9.50 | 11.1 | 13.2 | 17.2 |
| VRPP 12 | 12 | 1.39 | 1.70 | 2.69 | 3.45 | 4.17 | 4.75 | 5.78 | 6.30 | 7.00 | 9.01 | 10.5 | 14.3 | 16.6 | 19.8 | 25.9 |
| VRPP 16 | 16 | 1.86 | 2.26 | 3.59 | 4.60 | 5.55 | 6.33 | 7.71 | 8.40 | 9.33 | 12.0 | 14.0 | 19.0 | 22.1 | 26.4 | 34.5 |
| VRPP 18 | 18 | 2.09 | 2.55 | 4.04 | 5.17 | 6.25 | 7.12 | 8.68 | 9.45 | 10.5 | 13.5 | 15.8 | 21.4 | 24.9 | 29.7 | 38.8 |
| VRPP 24 | 24 | 2.78 | 3.40 | 5.38 | 6.89 | 8.33 | 9.50 | 11.6 | 12.6 | 14.0 | 18.0 | 21.0 | 28.5 | 33.2 | 39.5 | 51.7 |
| VRPP 27 | 27 | 3.13 | 3.82 | 6.05 | 7.76 | 9.37 | 10.7 | 13.0 | 14.2 | 15.8 | 20.3 | 23.7 | 32.1 | 37.3 | 44.5 | 58.2 |
| VRPP 32 | 32 | 3.71 | 4.53 | 7.18 | 9.19 | 11.1 | 12.7 | 15.4 | 16.8 | 18.7 | 24.0 | 28.1 | 38.0 | 44.2 | 52.7 | 69.0 |
| VRPP 36 | 36 | 4.18 | 5.09 | 8.07 | 10.3 | 12.5 | 14.2 | 17.4 | 18.9 | 21.0 | 27.0 | 31.6 | 42.8 | 49.7 | 59.3 | 77.6 |
| VRPP 40 | 40 | 4.64 | 5.66 | 8.97 | 11.5 | 13.9 | 15.8 | 19.3 | 21.0 | 23.3 | 30.0 | 35.1 | 47.5 | 55.3 | 65.9 | 86.2 |
| VRPP 45 | 45 | 5.22 | 6.37 | 10.1 | 12.9 | 15.6 | 17.8 | 21.7 | 23.6 | 26.3 | 33.8 | 39.5 | 53.4 | 62.2 | 74.1 | 97.0 |
| VRPP 50 | 50 | 5.80 | 7.13 | 11.2 | 16.0 | 17.9 | 19.2 | 21.9 | 23.0 | 26.5 | 33.6 | 38.8 | 50.4 | 54.6 | 61.4 | 69.5 |
| VRPP 57 | 57 | 6.61 | 8.13 | 12.8 | 18.2 | 20.4 | 21.9 | 25.0 | 26.2 | 30.3 | 38.2 | 44.2 | 57.5 | 62.2 | 70.0 | 79.2 |
| VRPP 66 | 66 | 7.66 | 9.42 | 14.8 | 21.1 | 23.6 | 25.3 | 29.0 | 30.3 | 35.0 | 44.3 | 51.2 | 66.6 | 72.1 | 81.1 | 91.8 |
| VRPP 71 | 71 | 8.24 | 10.1 | 15.9 | 22.7 | 25.4 | 27.2 | 31.1 | 32.6 | 37.7 | 47.6 | 55.2 | 71.8 | 77.5 | 87.2 | 98.8 |
| VRPP 76 | 76 | 8.82 | 10.8 | 17.0 | 24.3 | 27.2 | 29.2 | 33.3 | 34.9 | 40.3 | 51.0 | 59.0 | 76.7 | 83.0 | 93.4 | 106 |
| VRPP 82 | 82 | 9.51 | 11.7 | 18.4 | 26.3 | 29.3 | 31.5 | 36.0 | 37.7 | 43.5 | 55.0 | 63.6 | 82.7 | 89.5 | 101 | 114 |
| VRPP 89 | 89 | 10.3 | 12.7 | 19.9 | 28.5 | 31.9 | 34.2 | 39.0 | 40.9 | 47.2 | 59.7 | 69.1 | 89.8 | 97.2 | 109 | 124 |
| VRPP 95 | 95 | 11.0 | 13.6 | 21.3 | 30.4 | 34.0 | 36.5 | 41.7 | 43.7 | 50.4 | 63.7 | 73.9 | 96.0 | 104 | 117 | 132 |
| VRPP 103 | 103 | 12.0 | 14.7 | 23.1 | 33.0 | 36.9 | 39.5 | 45.2 | 47.4 | 54.7 | 69.1 | 79.9 | 104 | 112 | 127 | 143 |
| VRPP 111 | 111 | 12.9 | 15.8 | 24.8 | 35.5 | 39.7 | 42.6 | 48.7 | 51.0 | 58.9 | 74.5 | 86.1 | 112 | 121 | 136 | 154 |
| VRPP 119 | 119 | 13.8 | 17.0 | 26.6 | 38.1 | 42.6 | 45.7 | 52.2 | 54.7 | 63.2 | 79.8 | 92.6 | 120 | 130 | 146 | 165 |
| VRPP 133 | 133 | 15.4 | 19.0 | 29.8 | 42.6 | 47.6 | 51.0 | 58.3 | 61.2 | 70.6 | 89.2 | 103 | 134 | 145 | 163 | 185 |
| VRPP 142 | 142 | 16.5 | 20.3 | 31.8 | 45.4 | 50.8 | 54.5 | 62.3 | 65.3 | 75.4 | 95.3 | 110 | 143 | 155 | 174 | 197 |
| VRPP 155 | 155 | 18.0 | 22.1 | 34.7 | 49.6 | 55.5 | 59.5 | 68.0 | 71.3 | 82.3 | 104 | 120 | 156 | 169 | 190 | 215 |
| VRPP 166 | 166 | 19.3 | 23.7 | 37.2 | 53.1 | 59.4 | 63.7 | 72.8 | 76.3 | 88.1 | 111 | 129 | 167 | 181 | 204 | 231 |
| VRPP 178 | 178 | 20.7 | 25.4 | 39.8 | 57.0 | 63.7 | 68.3 | 78.1 | 81.9 | 94.5 | 119 | 138 | 180 | 194 | 219 | 247 |
| VRPP 190 | 190 | 22.0 | 27.1 | 42.5 | 60.7 | 68.0 | 72.9 | 83.3 | 87.4 | 101 | 127 | 148 | 192 | 207 | 233 | 264 |
| VRPP 206 | 206 | 23.9 | 29.4 | 46.1 | 66.0 | 73.7 | 79.1 | 90.4 | 94.7 | 109 | 138 | 160 | 208 | 225 | 253 | 286 |
| VRPP 222 | 222 | 25.8 | 31.7 | 49.7 | 71.1 | 79.5 | 85.2 | 97.4 | 102 | 118 | 149 | 172 | 224 | 242 | 273 | 309 |
| VRPP 238 | 238 | 27.6 | 34.0 | 53.3 | 76.1 | 85.2 | 91.3 | 104 | 109 | 126 | 160 | 185 | 240 | 260 | 292 | 332 |
| VRPP 266 | 266 | 30.9 | 38.0 | 59.5 | 85.2 | 95.2 | 102 | 117 | 122 | 141 | 178 | 206 | 268 | 290 | 327 | 370 |
| VRPP 285 | 285 | 33.1 | 40.7 | 63.8 | 91.1 | 102 | 109 | 125 | 131 | 151 | 191 | 221 | 288 | 311 | 350 | 396 |
| VRPP 310 | 310 | 36.0 | 44.2 | 69.4 | 99.3 | 111 | 119 | 136 | 143 | 165 | 208 | 241 | 313 | 339 | 381 | 431 |
| VRPP 332 | 332 | 38.5 | 47.4 | 74.3 | 106 | 119 | 127 | 146 | 153 | 176 | 223 | 258 | 335 | 363 | 408 | 462 |
| VRPP 357 | 357 | 41.4 | 50.9 | 80.0 | 114 | 128 | 137 | 157 | 164 | 190 | 240 | 278 | 360 | 390 | 439 | 496 |
| VRPP 370 | 370 | 42.9 | 52.8 | 82.8 | 118 | 132 | 142 | 162 | 170 | 196 | 248 | 287 | 373 | 404 | 455 | 514 |
| VRPP 400 | 400 | 46.4 | 57.1 | 89.5 | 128 | 143 | 154 | 175 | 184 | 212 | 268 | 310 | 404 | 437 | 491 | 556 |
| VRPP 426 | 426 | 49.4 | 60.9 | 95.4 | 136 | 152 | 163 | 187 | 196 | 226 | 286 | 331 | 431 | 465 | 523 | 592 |
| VRPP 438 | 438 | 50.8 | 62.5 | 98.0 | 140 | 157 | 168 | 192 | 201 | 233 | 294 | 340 | 442 | 478 | 538 | 609 |
| VRPP 476 | 476 | 55.2 | 68.0 | 107 | 152 | 170 | 183 | 209 | 219 | 253 | 319 | 369 | 481 | 520 | 585 | 663 |
| VRPP 498 | 498 | 57.8 | 71.1 | 111 | 159 | 178 | 191 | 218 | 229 | 264 | 334 | 386 | 502 | 544 | 612 | 692 |
| VRPP 530 | 530 | 61.5 | 75.6 | 119 | 170 | 190 | 203 | 232 | 244 | 281 | 356 | 411 | 535 | 579 | 651 | 737 |
| VRPP 568 | 568 | 65.9 | 81.0 | 127 | 182 | 203 | 218 | 249 | 261 | 302 | 381 | 441 | 573 | 620 | 698 | 790 |
| VRPP 580 | 580 | 67.3 | 82.8 | 130 | 186 | 208 | 223 | 254 | 267 | 308 | 389 | 450 | 585 | 633 | 713 | 806 |
| VRPP 624 | 624 | 72.4 | 89.0 | 140 | 200 | 223 | 239 | 274 | 287 | 331 | 419 | 484 | 630 | 681 | 767 | 868 |
| VRPP 664 | 664 | 77.0 | 94.7 | 149 | 213 | 238 | 255 | 291 | 305 | 352 | 446 | 515 | 670 | 725 | 816 | 923 |
| VRPP 710 | 710 | 82.4 | 101 | 159 | 227 | 254 | 272 | 311 | 326 | 377 | 476 | 551 | 716 | 775 | 872 | 987 |
| VRPP 728 | 728 | 84.5 | 104 | 163 | 233 | 261 | 279 | 319 | 335 | 386 | 488 | 565 | 734 | 795 | 894 | 1012 |

Battery arrangement as per rack design

| CONT. REF | 1 TIER | | | | | | | | 2 TIER | | | | | | | | | |
|---|--------|---|--------|-----|--------|-----|--------|------|--------|---|--------|------|--------|------|--------|------|--|--|
| | 1 STEP | | 2 STEP | | 3 STEP | | 4 STEP | | 1 STEP | | 2 STEP | | 3 STEP | | 4 STEP | | | |
| | W | H | W | H | W | H | W | H | W | H | W | H | W | H | W | H | | |
| B21/B22 B23/B24-1 B41B/42/42A B44/45 | | | 296 | 703 | 434 | 818 | 572 | 933 | | | | | 434 | 1450 | 572 | 1700 | | |
| | | | 440 | 844 | 650 | 959 | 860 | 1074 | | | 440 | 1550 | 650 | 1800 | 860 | 2050 | | |
| | | | 440 | 844 | 650 | 959 | 860 | 1074 | | | 440 | 1550 | 650 | 1800 | 860 | 2050 | | |
| B44-2 B42A-2 B42A-3 B42-2 B42-3 | | | 270 | 844 | 395 | 959 | 520 | 1074 | | | | | 434 | 1450 | 572 | 1700 | | |
| | | | 312 | 844 | 458 | 959 | 604 | 1074 | | | 312 | 1550 | 458 | 1800 | 604 | 2050 | | |
| | | | 420 | 844 | 620 | 959 | 820 | 1074 | | | 420 | 1550 | 620 | 1800 | 820 | 2050 | | |
| | | | 338 | 844 | 497 | 959 | 656 | 1074 | | | 338 | 1550 | 497 | 1800 | 656 | 2050 | | |
| | | | 458 | 844 | 677 | 959 | 896 | 1074 | | | 458 | 1550 | 677 | 1800 | 896 | 2050 | | |
| B42-4 B42-5 B41B-2 B41B-3 B41B-4 | | | 578 | 844 | 857 | 959 | | | | | 578 | 1550 | 857 | 1800 | | | | |
| | | | 698 | 844 | | | | | | | 698 | 1550 | | | | | | |
| | | | 388 | 844 | 572 | 959 | 756 | 1074 | | | 388 | 1550 | 572 | 1800 | 756 | 2050 | | |
| | | | 534 | 844 | 791 | 959 | | | | | 534 | 1550 | 791 | 1800 | | | | |
| | | | 680 | 844 | | | | | | | 680 | 1550 | | | | | | |

Calculation of length:-

length of rack = (x + 5) x no. of block cells in a row (for all block cells)

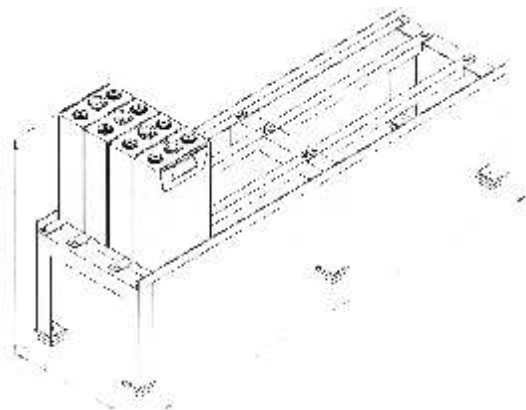
Where x = length of cell or block cell for row-wise mounting (i.e. For B 21/22/23/24/41B/42/42A/44/45-1)
 = width of cell or block cell for cross-wise mounting (i.e. For B 44-2/42A-2,3/42-2,3,4,5/41B-2,3,4,5)

The value of length should be rounded-off to nearest to 50 mm and 5mm should be added.

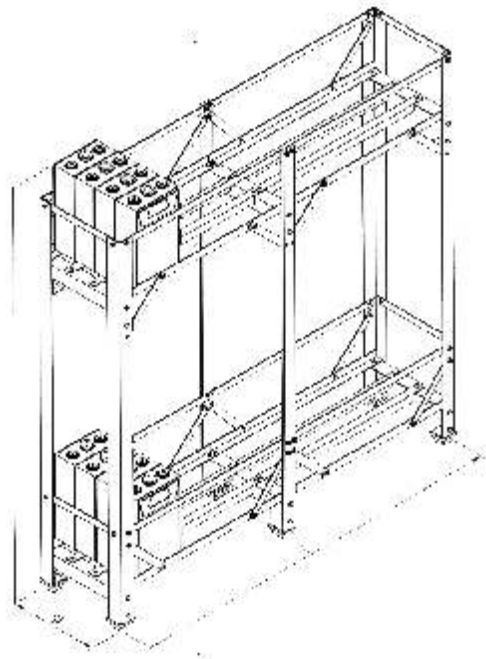
Important changes:-

1. For single tier racks lower step gable height increased to 300mm instead of 115mm for better accessibility of bottom row cells and terminal assembly.
2. But for two tier racks lower step gable height is maintained as 115mm since terminal assembly will be provided on the upper tier.
3. Rack legs or side supporters assembled to inside, reducing the width of rack by angle width.
4. The changes have been taken into consideration while calculating above dimension.

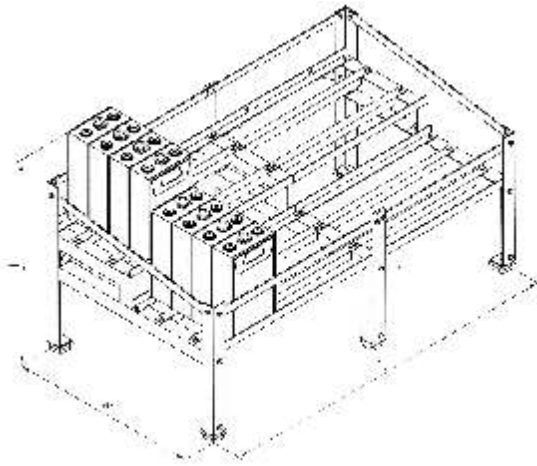
1 step, 1 tier rack



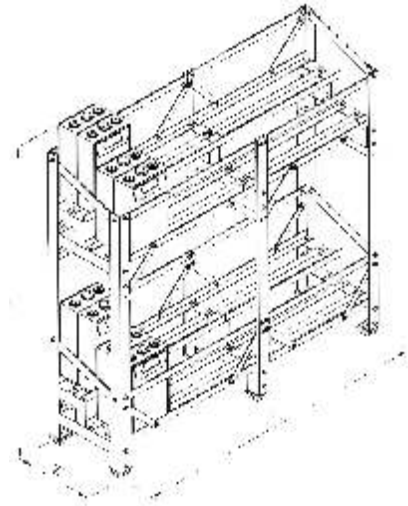
1 step, 2 tier rack



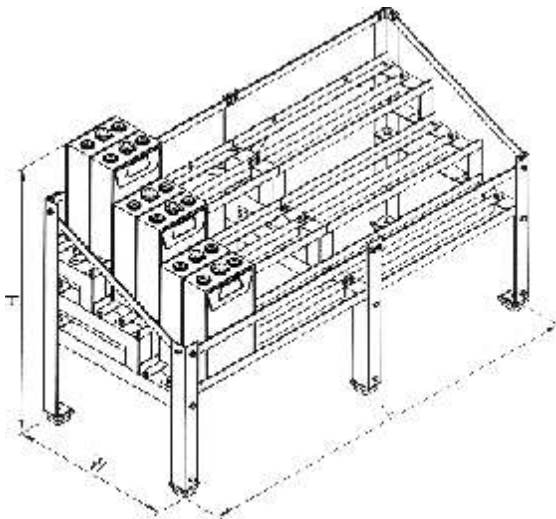
2 step, 1 tier rack



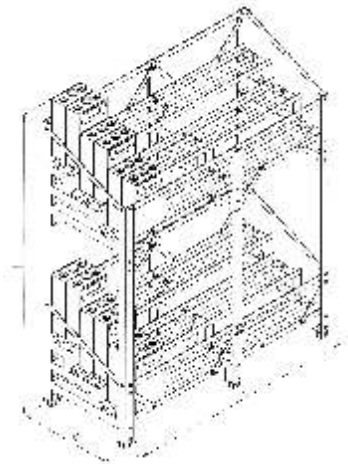
2 step, 2 tier rack



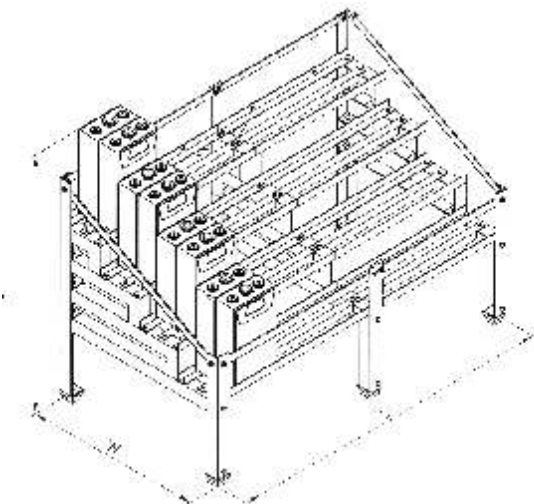
3 step, 1 tier rack



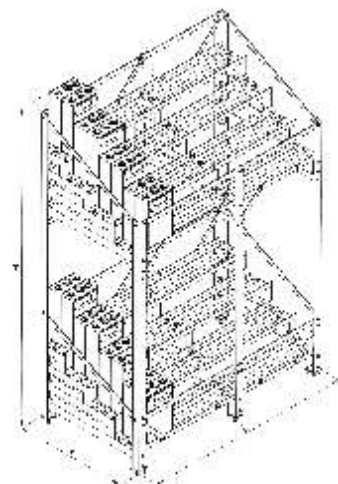
3 step, 2 tier rack



4 step, 1 tier rack



4 step, 2 tier rack





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