



**data safe<sup>®</sup>**<sub>HX</sub> **data safe<sup>®</sup>**<sub>HX</sub>

**Performance Data**

## Constant Power Discharge Performance Data

### Constant Power (Watts per cell) to 1.75Vpc at 25°C/77°F

| DataSafe HX+<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|------------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                              | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX385+                     | 625.1                  | 466.9 | 369.8 | 305.7 | 228.2 | 168.0 | 132.7 |
| 12HX450+                     | 729.9                  | 544.9 | 431.5 | 356.7 | 266.2 | 195.9 | 154.7 |
| 12HX530+                     | 794.3                  | 616.8 | 501.6 | 422.0 | 320.6 | 238.3 | 190.0 |
| 12HX600+                     | 899.1                  | 698.7 | 568.1 | 477.1 | 362.2 | 269.1 | 214.5 |
| 12HX650F-FR+                 | 990.8                  | 772.9 | 627.5 | 526.7 | 400.5 | 298.9 | 239.6 |
| 12HX700F-FR+                 | 1024                   | 809.0 | 664.3 | 557.9 | 424.6 | 316.0 | 251.3 |

| DataSafe HX<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|-----------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                             | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX25                      | 46.8                   | 30.4  | 22.8  | 18.4  | 13.3  | 9.62  | 7.57  |
| 12HX35                      | 70.3                   | 47.0  | 36.0  | 29.1  | 21.2  | 15.2  | 12.0  |
| 12HX50                      | 105.4                  | 70.0  | 53.4  | 43.5  | 31.9  | 23.0  | 18.1  |
| 12HX80                      | 144.3                  | 101.1 | 78.6  | 63.9  | 46.7  | 33.6  | 26.6  |
| 12HX105                     | 192.2                  | 133.7 | 102.1 | 83.8  | 61.8  | 45.0  | 35.7  |
| 12HX100S                    | 161.8                  | 124.8 | 101.4 | 85.4  | 65.4  | 49.1  | 39.4  |
| 12HX135                     | 244.1                  | 171.4 | 134.0 | 110.1 | 81.8  | 59.6  | 47.5  |
| 12HX150                     | 270.1                  | 195.3 | 152.1 | 126.9 | 96.0  | 71.2  | 57.0  |
| 12HX205                     | 373.1                  | 257.9 | 197.2 | 160.3 | 117.6 | 85.1  | 66.6  |
| 12HX300                     | 513.3                  | 356.7 | 276.9 | 227.2 | 173.3 | 127.8 | 102.1 |
| 12HX330                     | 590.4                  | 417.9 | 328.4 | 272.1 | 204.3 | 149.9 | 119.5 |
| 12HX400                     | 671.2                  | 478.5 | 371.2 | 308.2 | 230.0 | 170.0 | 136.1 |
| 12HX505                     | 782.8                  | 600.2 | 479.4 | 398.4 | 298.1 | 218.1 | 172.9 |
| 12HX540                     | 834.9                  | 637.7 | 511.0 | 424.5 | 317.8 | 233.8 | 185.5 |

### Constant Power (Watts per cell) to 1.70Vpc at 25°C/77°F

| DataSafe HX+<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|------------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                              | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX385+                     | 666.6                  | 489.1 | 381.6 | 312.8 | 230.9 | 168.1 | 132.7 |
| 12HX450+                     | 778.6                  | 570.9 | 445.3 | 364.9 | 269.3 | 196.0 | 154.7 |
| 12HX530+                     | 848.1                  | 650.4 | 522.2 | 435.2 | 326.5 | 240.0 | 190.4 |
| 12HX600+                     | 962.7                  | 738.0 | 591.6 | 492.2 | 369.1 | 271.0 | 214.8 |
| 12HX650F-FR+                 | 1060                   | 806.8 | 644.8 | 536.4 | 404.3 | 299.7 | 239.6 |
| 12HX700F-FR+                 | 1089                   | 850.6 | 690.9 | 575.0 | 432.4 | 317.0 | 251.3 |

| DataSafe HX<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|-----------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                             | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX25                      | 49.0                   | 31.3  | 23.3  | 18.6  | 13.4  | 9.63  | 7.57  |
| 12HX35                      | 72.8                   | 47.9  | 36.2  | 29.2  | 21.2  | 15.2  | 12.0  |
| 12HX50                      | 110.5                  | 72.0  | 54.4  | 44.0  | 32.1  | 23.0  | 18.1  |
| 12HX80                      | 152.2                  | 104.2 | 80.1  | 64.7  | 46.8  | 33.6  | 26.6  |
| 12HX105                     | 204.1                  | 139.1 | 105.2 | 85.6  | 62.9  | 45.6  | 36.1  |
| 12HX100S                    | 174.5                  | 131.9 | 105.4 | 88.1  | 66.9  | 49.8  | 39.7  |
| 12HX135                     | 256.0                  | 175.5 | 135.5 | 110.6 | 81.8  | 59.6  | 47.5  |
| 12HX150                     | 289.1                  | 205.0 | 157.6 | 130.0 | 97.4  | 71.5  | 57.0  |
| 12HX205                     | 399.5                  | 269.3 | 203.5 | 164.2 | 118.5 | 85.1  | 66.6  |
| 12HX300                     | 545.4                  | 368.7 | 283.4 | 231.0 | 174.3 | 127.8 | 102.1 |
| 12HX330                     | 624.2                  | 430.7 | 335.6 | 276.3 | 205.6 | 149.9 | 119.5 |
| 12HX400                     | 708.1                  | 493.2 | 380.0 | 312.8 | 231.6 | 170.0 | 136.1 |
| 12HX505                     | 844.7                  | 637.1 | 498.7 | 409.9 | 301.3 | 217.9 | 172.9 |
| 12HX540                     | 897.5                  | 674.8 | 531.7 | 438.5 | 326.3 | 235.9 | 186.2 |

## Constant Power Discharge Performance Data

### Constant Power (Watts per cell) to 1.67Vpc at 25°C/77°F

| DataSafe HX+<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|------------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                              | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX385+                     | 688.5                  | 498.2 | 385.8 | 314.5 | 230.9 | 168.1 | 132.7 |
| 12HX450+                     | 804.3                  | 581.7 | 450.2 | 367.0 | 269.3 | 196.0 | 154.7 |
| 12HX530+                     | 876.2                  | 665.8 | 530.4 | 438.5 | 326.8 | 240.0 | 190.4 |
| 12HX600+                     | 995.7                  | 755.8 | 600.5 | 496.2 | 369.4 | 271.0 | 214.8 |
| 12HX650F-FR+                 | 1094                   | 819.5 | 649.9 | 537.9 | 404.3 | 299.7 | 239.6 |
| 12HX700F-FR+                 | 1122                   | 869.9 | 700.6 | 580.9 | 432.4 | 317.0 | 251.3 |

| DataSafe HX<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|-----------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                             | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX25                      | 50.0                   | 31.6  | 23.3  | 18.6  | 13.4  | 9.63  | 7.57  |
| 12HX35                      | 73.8                   | 48.0  | 36.2  | 29.2  | 21.2  | 15.2  | 12.0  |
| 12HX50                      | 112.7                  | 72.7  | 54.5  | 44.0  | 32.1  | 23.0  | 18.1  |
| 12HX80                      | 155.6                  | 105.2 | 80.2  | 64.7  | 46.8  | 33.6  | 26.6  |
| 12HX105                     | 209.6                  | 141.3 | 106.9 | 86.0  | 63.1  | 45.7  | 36.2  |
| 12HX100S                    | 180.9                  | 134.8 | 106.9 | 89.0  | 67.2  | 49.8  | 39.7  |
| 12HX135                     | 260.3                  | 176.5 | 135.5 | 110.6 | 81.8  | 59.6  | 47.5  |
| 12HX150                     | 298.7                  | 209.0 | 159.6 | 130.7 | 97.4  | 71.5  | 57.0  |
| 12HX205                     | 412.4                  | 273.9 | 205.5 | 164.2 | 118.5 | 85.1  | 66.6  |
| 12HX300                     | 557.9                  | 373.1 | 284.3 | 231.0 | 174.3 | 127.8 | 102.1 |
| 12HX330                     | 637.2                  | 435.4 | 336.4 | 276.3 | 205.6 | 149.9 | 119.5 |
| 12HX400                     | 722.1                  | 498.4 | 381.2 | 312.8 | 231.6 | 170.0 | 136.1 |
| 12HX505                     | 877.4                  | 652.9 | 506.3 | 412.1 | 301.3 | 217.9 | 172.9 |
| 12HX540                     | 930.7                  | 690.9 | 540.3 | 444.3 | 326.4 | 235.9 | 186.2 |

### Constant Power (Watts per cell) to 1.65Vpc at 25°C/77°F

| DataSafe HX+<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|------------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                              | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX385+                     | 701.2                  | 503.0 | 387.7 | 314.5 | 230.9 | 168.1 | 132.7 |
| 12HX450+                     | 819.0                  | 587.2 | 452.4 | 367.0 | 269.3 | 196.0 | 154.7 |
| 12HX530+                     | 893.2                  | 673.7 | 533.8 | 439.5 | 326.8 | 240.0 | 190.4 |
| 12HX600+                     | 1016                   | 764.8 | 604.3 | 497.3 | 369.4 | 271.0 | 214.8 |
| 12HX650F-FR+                 | 1113                   | 824.8 | 651.8 | 537.9 | 404.3 | 299.7 | 239.6 |
| 12HX700F-FR+                 | 1143                   | 880.2 | 705.3 | 583.5 | 432.4 | 317.0 | 251.3 |

| DataSafe HX<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|-----------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                             | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX25                      | 50.5                   | 31.6  | 23.3  | 18.6  | 13.4  | 9.63  | 7.57  |
| 12HX35                      | 74.2                   | 48.0  | 36.2  | 29.2  | 21.2  | 15.2  | 12.0  |
| 12HX50                      | 113.9                  | 72.8  | 54.5  | 44.0  | 32.1  | 23.0  | 18.1  |
| 12HX80                      | 157.2                  | 105.5 | 80.2  | 64.7  | 46.8  | 33.6  | 26.6  |
| 12HX105                     | 212.6                  | 142.3 | 106.7 | 86.2  | 63.1  | 45.7  | 36.2  |
| 12HX100S                    | 184.7                  | 136.2 | 107.6 | 89.4  | 67.2  | 49.8  | 39.7  |
| 12HX135                     | 262.1                  | 176.7 | 135.5 | 110.6 | 81.8  | 59.6  | 47.5  |
| 12HX150                     | 304.3                  | 210.9 | 160.5 | 130.7 | 97.4  | 71.5  | 57.0  |
| 12HX205                     | 419.6                  | 276.3 | 205.5 | 164.2 | 118.5 | 85.1  | 66.6  |
| 12HX300                     | 563.3                  | 374.8 | 284.3 | 231.0 | 174.3 | 127.8 | 102.1 |
| 12HX330                     | 643.1                  | 437.3 | 336.4 | 276.3 | 205.6 | 149.9 | 119.5 |
| 12HX400                     | 728.7                  | 500.3 | 381.2 | 312.8 | 231.6 | 170.0 | 136.1 |
| 12HX505                     | 897.3                  | 660.7 | 510.1 | 412.1 | 301.3 | 217.9 | 172.9 |
| 12HX540                     | 951.0                  | 699.2 | 544.9 | 445.5 | 326.4 | 235.9 | 186.2 |

## Constant Power Discharge Performance Data

### Constant Power (Watts per cell) to 1.63Vpc at 25°C/77°F

| DataSafe HX+<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|------------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                              | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX385+                     | 713.1                  | 507.0 | 388.3 | 314.5 | 230.9 | 168.1 | 132.7 |
| 12HX450+                     | 833.1                  | 591.9 | 453.2 | 367.0 | 269.3 | 196.0 | 154.7 |
| 12HX530+                     | 909.0                  | 680.2 | 535.4 | 439.5 | 326.8 | 240.0 | 190.4 |
| 12HX600+                     | 1034                   | 772.2 | 606.4 | 497.3 | 369.4 | 271.0 | 214.8 |
| 12HX650F-FR+                 | 1130                   | 828.4 | 651.8 | 537.9 | 404.3 | 299.7 | 239.6 |
| 12HX700F-FR+                 | 1162                   | 889.0 | 709.1 | 583.9 | 432.4 | 317.0 | 251.3 |

| DataSafe HX<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|-----------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                             | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX25                      | 50.9                   | 31.6  | 23.3  | 18.6  | 13.4  | 9.63  | 7.57  |
| 12HX35                      | 74.4                   | 48.0  | 36.2  | 29.2  | 21.2  | 15.2  | 12.0  |
| 12HX50                      | 115.0                  | 72.8  | 54.5  | 44.0  | 32.1  | 23.0  | 18.1  |
| 12HX80                      | 158.4                  | 105.5 | 80.2  | 64.7  | 46.8  | 33.6  | 26.6  |
| 12HX105                     | 215.3                  | 143.1 | 107.0 | 86.3  | 63.1  | 45.7  | 36.2  |
| 12HX100S                    | 188.1                  | 137.4 | 108.1 | 89.5  | 67.2  | 49.8  | 39.7  |
| 12HX135                     | 263.4                  | 176.7 | 135.5 | 110.6 | 81.8  | 59.6  | 47.5  |
| 12HX150                     | 309.1                  | 212.5 | 160.5 | 130.7 | 97.4  | 71.5  | 57.0  |
| 12HX205                     | 425.7                  | 278.2 | 205.5 | 164.2 | 118.5 | 85.1  | 66.6  |
| 12HX300                     | 567.2                  | 374.8 | 284.3 | 231.0 | 174.3 | 127.8 | 102.1 |
| 12HX330                     | 647.6                  | 437.2 | 336.4 | 276.3 | 205.6 | 149.9 | 119.5 |
| 12HX400                     | 733.7                  | 500.3 | 381.2 | 312.8 | 231.6 | 170.0 | 136.1 |
| 12HX505                     | 915.7                  | 667.1 | 510.9 | 412.1 | 301.3 | 217.9 | 172.9 |
| 12HX540                     | 969.9                  | 706.1 | 548.7 | 445.5 | 326.4 | 235.9 | 186.2 |

### Constant Power (Watts per cell) to 1.60Vpc at 25°C/77°F

| DataSafe HX+<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|------------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                              | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX385+                     | 729.0                  | 511.2 | 388.3 | 314.5 | 230.9 | 168.1 | 132.7 |
| 12HX450+                     | 851.6                  | 596.8 | 453.2 | 367.0 | 269.3 | 196.0 | 154.7 |
| 12HX530+                     | 930.0                  | 688.0 | 536.4 | 439.5 | 326.8 | 240.0 | 190.4 |
| 12HX600+                     | 1059                   | 780.8 | 607.5 | 497.3 | 369.4 | 271.0 | 214.8 |
| 12HX650F-FR+                 | 1134                   | 831.2 | 651.8 | 537.9 | 404.3 | 299.7 | 239.6 |
| 12HX700F-FR+                 | 1189                   | 899.0 | 712.6 | 583.9 | 432.4 | 317.0 | 251.3 |

| DataSafe HX<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|-----------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                             | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX25                      | 51.4                   | 31.6  | 23.3  | 18.6  | 13.4  | 9.63  | 7.57  |
| 12HX35                      | 74.6                   | 48.0  | 36.2  | 29.2  | 21.2  | 15.2  | 12.0  |
| 12HX50                      | 116.1                  | 72.8  | 54.5  | 44.0  | 32.1  | 23.0  | 18.1  |
| 12HX80                      | 159.6                  | 105.5 | 80.2  | 64.7  | 46.8  | 33.6  | 26.6  |
| 12HX105                     | 218.6                  | 143.7 | 107.0 | 86.3  | 63.1  | 45.7  | 36.2  |
| 12HX100S                    | 192.4                  | 138.5 | 108.5 | 89.5  | 67.2  | 49.8  | 39.7  |
| 12HX135                     | 264.2                  | 176.7 | 135.5 | 110.6 | 81.8  | 59.6  | 47.5  |
| 12HX150                     | 315.1                  | 214.0 | 160.5 | 130.7 | 97.4  | 71.5  | 57.0  |
| 12HX205                     | 433.2                  | 278.8 | 205.5 | 164.2 | 118.5 | 85.1  | 66.6  |
| 12HX300                     | 571.0                  | 374.8 | 284.3 | 231.0 | 174.3 | 127.8 | 102.1 |
| 12HX330                     | 652.0                  | 437.2 | 336.4 | 276.3 | 205.6 | 149.9 | 119.5 |
| 12HX400                     | 738.6                  | 500.3 | 381.2 | 312.8 | 231.6 | 170.0 | 136.1 |
| 12HX505                     | 940.5                  | 675.0 | 510.9 | 412.1 | 301.3 | 217.9 | 172.9 |
| 12HX540                     | 994.8                  | 714.5 | 549.5 | 445.5 | 326.4 | 235.9 | 186.2 |



## Constant Current Discharge Performance Data

### Discharge Current (Amperes) to 1.75Vpc at 25°C/77°F

| DataSafe HX+<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|------------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                              | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX385+                     | 352.4                  | 256.9 | 200.4 | 163.8 | 120.7 | 87.22 | 68.58 |
| 12HX450+                     | 411.5                  | 299.8 | 233.8 | 191.1 | 140.7 | 101.7 | 79.96 |
| 12HX530+                     | 450.3                  | 342.8 | 275.2 | 228.8 | 171.2 | 125.2 | 99.45 |
| 12HX600+                     | 509.8                  | 388.5 | 311.4 | 258.7 | 193.6 | 141.4 | 112.2 |
| 12HX650F-FR+                 | 567.4                  | 431.0 | 342.3 | 283.8 | 212.6 | 156.3 | 124.5 |
| 12HX700F-FR+                 | 581.1                  | 451.0 | 363.6 | 302.2 | 226.4 | 165.6 | 130.6 |

| DataSafe HX<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |      |
|-----------------------------|------------------------|-------|-------|-------|-------|-------|------|
|                             | 5                      | 10    | 15    | 20    | 30    | 45    | 60   |
| 12HX25                      | 25.6                   | 16.3  | 12.1  | 9.64  | 6.93  | 4.98  | 3.89 |
| 12HX35                      | 38.6                   | 25.2  | 19.1  | 15.2  | 10.9  | 7.80  | 6.11 |
| 12HX50                      | 57.8                   | 37.7  | 28.4  | 22.9  | 16.7  | 11.9  | 9.26 |
| 12HX80                      | 80.4                   | 55.1  | 42.2  | 33.9  | 24.4  | 17.4  | 13.6 |
| 12HX105                     | 105.9                  | 71.9  | 54.7  | 44.2  | 32.4  | 23.5  | 18.6 |
| 12HX100S                    | 91.5                   | 69.4  | 55.7  | 46.5  | 35.1  | 25.9  | 20.7 |
| 12HX135                     | 135.9                  | 93.4  | 71.8  | 58.4  | 42.7  | 30.8  | 24.3 |
| 12HX150                     | 152.1                  | 106.7 | 82.6  | 68.2  | 51.0  | 37.4  | 29.5 |
| 12HX205                     | 208.0                  | 140.6 | 106.0 | 85.4  | 61.9  | 44.0  | 34.4 |
| 12HX300                     | 286.4                  | 195.0 | 149.0 | 121.4 | 92.1  | 66.7  | 52.8 |
| 12HX330                     | 329.2                  | 228.9 | 177.4 | 145.6 | 108.0 | 78.3  | 61.7 |
| 12HX400                     | 375.6                  | 261.1 | 200.4 | 165.0 | 121.5 | 89.0  | 70.4 |
| 12HX505                     | 445.1                  | 333.1 | 262.3 | 215.4 | 158.9 | 114.3 | 89.6 |
| 12HX540                     | 473.3                  | 353.8 | 279.1 | 229.2 | 169.3 | 123.0 | 97.3 |

### Discharge Current (Amperes) to 1.70Vpc at 25°C/77°F

| DataSafe HX+<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|------------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                              | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX385+                     | 384.5                  | 273.3 | 208.7 | 168.9 | 122.1 | 87.22 | 68.58 |
| 12HX450+                     | 449.0                  | 319.0 | 243.5 | 197.0 | 142.4 | 101.7 | 79.96 |
| 12HX530+                     | 493.0                  | 368.0 | 290.0 | 238.0 | 175.3 | 126.1 | 99.45 |
| 12HX600+                     | 559.7                  | 417.7 | 328.5 | 269.3 | 198.1 | 142.4 | 112.2 |
| 12HX650F-FR+                 | 620.0                  | 457.0 | 355.5 | 291.5 | 215.1 | 156.5 | 124.5 |
| 12HX700F-FR+                 | 633.6                  | 482.9 | 383.5 | 314.2 | 230.9 | 165.6 | 130.6 |

| DataSafe HX<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |      |
|-----------------------------|------------------------|-------|-------|-------|-------|-------|------|
|                             | 5                      | 10    | 15    | 20    | 30    | 45    | 60   |
| 12HX25                      | 27.3                   | 16.9  | 12.4  | 9.77  | 6.96  | 4.98  | 3.89 |
| 12HX35                      | 40.6                   | 25.8  | 19.2  | 15.2  | 10.9  | 7.80  | 6.11 |
| 12HX50                      | 61.7                   | 39.0  | 29.1  | 23.2  | 16.8  | 11.9  | 9.26 |
| 12HX80                      | 86.4                   | 57.3  | 43.2  | 34.4  | 24.5  | 17.4  | 13.6 |
| 12HX105                     | 114.8                  | 75.4  | 56.7  | 45.6  | 33.2  | 23.9  | 18.9 |
| 12HX100S                    | 101.1                  | 74.6  | 58.7  | 48.4  | 36.2  | 26.4  | 20.9 |
| 12HX135                     | 145.1                  | 96.3  | 72.8  | 58.6  | 42.7  | 30.8  | 24.3 |
| 12HX150                     | 166.2                  | 113.9 | 86.2  | 70.6  | 51.8  | 37.5  | 29.5 |
| 12HX205                     | 227.0                  | 148.5 | 110.3 | 87.6  | 62.3  | 44.0  | 34.4 |
| 12HX300                     | 310.0                  | 203.6 | 154.2 | 123.6 | 92.7  | 66.7  | 52.8 |
| 12HX330                     | 355.0                  | 238.4 | 183.1 | 148.5 | 108.7 | 78.3  | 61.7 |
| 12HX400                     | 403.9                  | 272.9 | 206.7 | 168.3 | 122.2 | 89.0  | 70.4 |
| 12HX505                     | 492.5                  | 359.2 | 275.5 | 223.4 | 160.3 | 114.3 | 89.6 |
| 12HX540                     | 521.5                  | 380.5 | 293.8 | 239.2 | 174.4 | 124.3 | 97.4 |

## Constant Current Discharge Performance Data

### Discharge Current (Amperes) to 1.67Vpc at 25°C/77°F

| DataSafe HX+<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|------------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                              | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX385+                     | 402.0                  | 280.5 | 211.9 | 169.4 | 122.1 | 87.22 | 68.58 |
| 12HX450+                     | 469.5                  | 327.4 | 247.3 | 197.7 | 142.4 | 101.7 | 79.96 |
| 12HX530+                     | 516.4                  | 380.2 | 296.0 | 240.8 | 175.3 | 126.1 | 99.45 |
| 12HX600+                     | 587.2                  | 431.7 | 335.1 | 272.5 | 198.1 | 142.4 | 112.2 |
| 12HX650F-FR+                 | 647.3                  | 467.7 | 360.1 | 292.2 | 215.1 | 156.5 | 124.5 |
| 12HX700F-FR+                 | 662.9                  | 498.5 | 391.5 | 318.7 | 230.9 | 165.6 | 130.6 |

| DataSafe HX<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |      |
|-----------------------------|------------------------|-------|-------|-------|-------|-------|------|
|                             | 5                      | 10    | 15    | 20    | 30    | 45    | 60   |
| 12HX25                      | 28.0                   | 17.1  | 12.4  | 9.77  | 6.96  | 4.98  | 3.89 |
| 12HX35                      | 41.4                   | 25.8  | 19.2  | 15.2  | 10.9  | 7.80  | 6.11 |
| 12HX50                      | 63.4                   | 39.5  | 29.1  | 23.2  | 16.8  | 11.9  | 9.26 |
| 12HX80                      | 89.3                   | 58.1  | 43.2  | 34.4  | 24.5  | 17.4  | 13.6 |
| 12HX105                     | 119.3                  | 76.8  | 57.5  | 46.0  | 33.4  | 24.0  | 18.9 |
| 12HX100S                    | 106.2                  | 76.9  | 59.9  | 49.2  | 36.4  | 26.4  | 20.9 |
| 12HX135                     | 149.2                  | 97.0  | 72.8  | 58.6  | 42.7  | 30.8  | 24.3 |
| 12HX150                     | 173.8                  | 117.0 | 87.6  | 70.9  | 51.8  | 37.5  | 29.5 |
| 12HX205                     | 236.8                  | 153.6 | 111.0 | 87.6  | 62.3  | 44.0  | 34.4 |
| 12HX300                     | 320.3                  | 207.0 | 154.3 | 123.6 | 92.7  | 66.7  | 52.8 |
| 12HX330                     | 366.2                  | 242.3 | 183.2 | 148.5 | 108.7 | 78.3  | 61.7 |
| 12HX400                     | 416.0                  | 277.7 | 206.8 | 168.3 | 122.2 | 89.0  | 70.4 |
| 12HX505                     | 518.6                  | 371.1 | 281.0 | 223.7 | 160.3 | 114.3 | 89.6 |
| 12HX540                     | 548.3                  | 392.7 | 300.4 | 242.9 | 174.4 | 124.3 | 97.4 |

### Discharge Current (Amperes) to 1.65Vpc at 25°C/77°F

| DataSafe HX+<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|------------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                              | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX385+                     | 413.0                  | 284.4 | 212.8 | 169.4 | 122.1 | 87.22 | 68.58 |
| 12HX450+                     | 482.4                  | 331.9 | 248.3 | 197.7 | 142.4 | 101.7 | 79.96 |
| 12HX530+                     | 531.3                  | 387.3 | 298.6 | 241.0 | 175.3 | 126.1 | 99.45 |
| 12HX600+                     | 604.0                  | 439.6 | 338.1 | 272.6 | 198.1 | 142.4 | 112.2 |
| 12HX650F-FR+                 | 663.7                  | 473.2 | 360.6 | 292.2 | 215.1 | 156.5 | 124.5 |
| 12HX700F-FR+                 | 681.8                  | 507.6 | 395.9 | 319.2 | 230.9 | 165.6 | 130.6 |

| DataSafe HX<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |      |
|-----------------------------|------------------------|-------|-------|-------|-------|-------|------|
|                             | 5                      | 10    | 15    | 20    | 30    | 45    | 60   |
| 12HX25                      | 28.4                   | 17.1  | 12.4  | 9.77  | 6.96  | 4.98  | 3.89 |
| 12HX35                      | 41.8                   | 25.8  | 19.2  | 15.2  | 10.9  | 7.80  | 6.11 |
| 12HX50                      | 64.4                   | 39.5  | 29.1  | 23.2  | 16.8  | 11.9  | 9.26 |
| 12HX80                      | 90.8                   | 58.1  | 43.2  | 34.4  | 24.5  | 17.4  | 13.6 |
| 12HX105                     | 122.0                  | 77.6  | 57.9  | 46.2  | 33.4  | 24.0  | 18.9 |
| 12HX100S                    | 109.4                  | 78.2  | 60.5  | 49.5  | 36.4  | 26.4  | 20.9 |
| 12HX135                     | 151.3                  | 97.0  | 72.8  | 58.6  | 42.7  | 30.8  | 24.3 |
| 12HX150                     | 178.3                  | 118.7 | 87.8  | 70.9  | 51.8  | 37.5  | 29.5 |
| 12HX205                     | 242.5                  | 153.5 | 111.0 | 87.6  | 62.3  | 44.0  | 34.4 |
| 12HX300                     | 325.6                  | 207.5 | 154.3 | 123.6 | 92.7  | 66.7  | 52.8 |
| 12HX330                     | 372.1                  | 242.8 | 183.2 | 148.5 | 108.7 | 78.3  | 61.7 |
| 12HX400                     | 422.3                  | 278.4 | 206.8 | 168.3 | 122.2 | 89.0  | 70.4 |
| 12HX505                     | 535.0                  | 377.7 | 282.1 | 223.7 | 160.3 | 114.3 | 89.6 |
| 12HX540                     | 565.2                  | 399.7 | 304.2 | 242.9 | 174.4 | 124.3 | 97.4 |

## Constant Current Discharge Performance Data

### Discharge Current (Amperes) to 1.63Vpc at 25°C/77°F

| DataSafe HX+<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|------------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                              | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX385+                     | 423.3                  | 287.6 | 212.8 | 169.4 | 122.1 | 87.22 | 68.58 |
| 12HX450+                     | 494.4                  | 335.7 | 248.3 | 197.7 | 142.4 | 101.7 | 79.96 |
| 12HX530+                     | 545.4                  | 393.2 | 300.0 | 241.0 | 175.3 | 126.1 | 99.45 |
| 12HX600+                     | 620.7                  | 446.1 | 339.6 | 272.6 | 198.1 | 142.4 | 112.2 |
| 12HX650F-FR+                 | 678.0                  | 477.5 | 360.6 | 292.2 | 215.1 | 156.5 | 124.5 |
| 12HX700F-FR+                 | 699.9                  | 515.4 | 399.3 | 319.2 | 230.9 | 165.6 | 130.6 |

| DataSafe HX<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |      |
|-----------------------------|------------------------|-------|-------|-------|-------|-------|------|
|                             | 5                      | 10    | 15    | 20    | 30    | 45    | 60   |
| 12HX25                      | 28.8                   | 17.1  | 12.4  | 9.77  | 6.96  | 4.98  | 3.89 |
| 12HX35                      | 42.1                   | 25.8  | 19.2  | 15.2  | 10.9  | 7.80  | 6.11 |
| 12HX50                      | 65.2                   | 39.5  | 29.1  | 23.2  | 16.8  | 11.9  | 9.26 |
| 12HX80                      | 92.0                   | 58.1  | 43.2  | 34.4  | 24.5  | 17.4  | 13.6 |
| 12HX105                     | 124.4                  | 78.2  | 58.0  | 46.2  | 33.4  | 24.0  | 18.9 |
| 12HX100S                    | 112.4                  | 79.2  | 61.0  | 49.5  | 36.4  | 26.4  | 20.9 |
| 12HX135                     | 152.9                  | 97.0  | 72.8  | 58.6  | 42.7  | 30.8  | 24.3 |
| 12HX150                     | 182.3                  | 120.0 | 87.8  | 70.9  | 51.8  | 37.5  | 29.5 |
| 12HX205                     | 247.5                  | 154.2 | 111.0 | 87.6  | 62.3  | 44.0  | 34.4 |
| 12HX300                     | 330.1                  | 207.5 | 154.3 | 123.6 | 92.7  | 66.7  | 52.8 |
| 12HX330                     | 377.0                  | 242.8 | 183.2 | 148.5 | 108.7 | 78.3  | 61.7 |
| 12HX400                     | 427.5                  | 278.4 | 206.8 | 168.3 | 122.2 | 89.0  | 70.4 |
| 12HX505                     | 550.6                  | 383.3 | 282.1 | 223.7 | 160.3 | 114.3 | 89.6 |
| 12HX540                     | 581.3                  | 405.9 | 305.3 | 242.9 | 174.4 | 124.3 | 97.4 |

### Discharge Current (Amperes) to 1.60Vpc at 25°C/77°F

| DataSafe HX+<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |       |
|------------------------------|------------------------|-------|-------|-------|-------|-------|-------|
|                              | 5                      | 10    | 15    | 20    | 30    | 45    | 60    |
| 12HX385+                     | 437.7                  | 291.0 | 212.8 | 169.4 | 122.1 | 87.22 | 68.58 |
| 12HX450+                     | 511.3                  | 339.7 | 248.3 | 197.7 | 142.4 | 101.7 | 79.96 |
| 12HX530+                     | 565.3                  | 400.2 | 300.0 | 241.0 | 175.3 | 126.1 | 99.45 |
| 12HX600+                     | 643.8                  | 453.6 | 339.6 | 272.6 | 198.1 | 142.4 | 112.2 |
| 12HX650F-FR+                 | 695.3                  | 479.9 | 360.6 | 292.2 | 215.1 | 156.5 | 124.5 |
| 12HX700F-FR+                 | 725.6                  | 525.3 | 400.5 | 319.2 | 230.9 | 165.6 | 130.6 |

| DataSafe HX<br>Battery Type | Standby Time (Minutes) |       |       |       |       |       |      |
|-----------------------------|------------------------|-------|-------|-------|-------|-------|------|
|                             | 5                      | 10    | 15    | 20    | 30    | 45    | 60   |
| 12HX25                      | 29.1                   | 17.1  | 12.4  | 9.77  | 6.96  | 4.98  | 3.89 |
| 12HX35                      | 42.1                   | 25.8  | 19.2  | 15.2  | 10.9  | 7.80  | 6.11 |
| 12HX50                      | 66.2                   | 39.5  | 29.1  | 23.2  | 16.8  | 11.9  | 9.26 |
| 12HX80                      | 93.6                   | 58.1  | 43.2  | 34.4  | 24.5  | 17.4  | 13.6 |
| 12HX105                     | 127.4                  | 78.6  | 58.0  | 46.2  | 33.4  | 24.0  | 18.9 |
| 12HX100S                    | 116.2                  | 80.4  | 61.1  | 49.5  | 36.4  | 26.4  | 20.9 |
| 12HX135                     | 154.7                  | 97.0  | 72.8  | 58.6  | 42.7  | 30.8  | 24.3 |
| 12HX150                     | 187.7                  | 120.7 | 87.8  | 70.9  | 51.8  | 37.5  | 29.5 |
| 12HX205                     | 254.0                  | 154.2 | 111.0 | 87.6  | 62.3  | 44.0  | 34.4 |
| 12HX300                     | 335.5                  | 207.5 | 154.3 | 123.6 | 92.7  | 66.7  | 52.8 |
| 12HX330                     | 382.9                  | 242.8 | 183.2 | 148.5 | 108.7 | 78.3  | 61.7 |
| 12HX400                     | 433.9                  | 278.4 | 206.8 | 168.3 | 122.2 | 89.0  | 70.4 |
| 12HX505                     | 572.6                  | 390.4 | 282.1 | 223.7 | 160.3 | 114.3 | 89.6 |
| 12HX540                     | 603.5                  | 413.9 | 305.3 | 242.9 | 174.4 | 124.3 | 97.4 |



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