

BatteryModel

© Bob Brandenburg, TIGHAR #2286R

| | | |
|---------|---------|---------|
| EMFgrad | 0.01871 | volt/AH |
| Ebus | 14.25 | volts |
| AHeff | 90 | % |

| | | |
|------------------|--------|------|
| Ri | 0.0158 | ohm |
| Ambient bus load | 8.00 | amps |
| IBmax | 42.00 | amps |

| Charge Deficit | | | | | | | | | |
|----------------|--------|-------|-------|-----------|---------|---------|-------|-------|---------|
| AmpHr | AmpMin | Ebatt | Vdiff | Chg I (A) | dT(Min) | SOC(AH) | SOC% | CumT | SOC(AH) |
| 85.00 | 5100 | 12.66 | 1.590 | 42.00 | 1.59 | 0.0 | 0.00 | 0.00 | 0.0 |
| 84.00 | 5040 | 12.68 | 1.572 | 42.00 | 1.59 | 1.0 | 1.18 | 1.59 | 1.0 |
| 83.00 | 4980 | 12.70 | 1.553 | 42.00 | 1.59 | 2.0 | 2.35 | 3.17 | 2.0 |
| 82.00 | 4920 | 12.72 | 1.534 | 42.00 | 1.59 | 3.0 | 3.53 | 4.76 | 3.0 |
| 81.00 | 4860 | 12.73 | 1.516 | 42.00 | 1.59 | 4.0 | 4.71 | 6.35 | 4.0 |
| 80.00 | 4800 | 12.75 | 1.497 | 42.00 | 1.59 | 5.0 | 5.88 | 7.94 | 5.0 |
| 79.00 | 4740 | 12.77 | 1.478 | 42.00 | 1.59 | 6.0 | 7.06 | 9.52 | 6.0 |
| 78.00 | 4680 | 12.79 | 1.459 | 42.00 | 1.59 | 7.0 | 8.24 | 11.11 | 7.0 |
| 77.00 | 4620 | 12.81 | 1.441 | 42.00 | 1.59 | 8.0 | 9.41 | 12.70 | 8.0 |
| 76.00 | 4560 | 12.83 | 1.422 | 42.00 | 1.59 | 9.0 | 10.59 | 14.29 | 9.0 |
| 75.00 | 4500 | 12.85 | 1.403 | 42.00 | 1.59 | 10.0 | 11.76 | 15.87 | 10.0 |
| 74.00 | 4440 | 12.87 | 1.385 | 42.00 | 1.59 | 11.0 | 12.94 | 17.46 | 11.0 |
| 73.00 | 4380 | 12.88 | 1.366 | 42.00 | 1.59 | 12.0 | 14.12 | 19.05 | 12.0 |
| 72.00 | 4320 | 12.90 | 1.347 | 42.00 | 1.59 | 13.0 | 15.29 | 20.63 | 13.0 |
| 71.00 | 4260 | 12.92 | 1.328 | 42.00 | 1.59 | 14.0 | 16.47 | 22.22 | 14.0 |
| 70.00 | 4200 | 12.94 | 1.310 | 42.00 | 1.59 | 15.0 | 17.65 | 23.81 | 15.0 |
| 69.00 | 4140 | 12.96 | 1.291 | 42.00 | 1.59 | 16.0 | 18.82 | 25.40 | 16.0 |
| 68.00 | 4080 | 12.98 | 1.272 | 42.00 | 1.59 | 17.0 | 20.00 | 26.98 | 17.0 |
| 67.00 | 4020 | 13.00 | 1.254 | 42.00 | 1.59 | 18.0 | 21.18 | 28.57 | 18.0 |
| 66.00 | 3960 | 13.02 | 1.235 | 42.00 | 1.59 | 19.0 | 22.35 | 30.16 | 19.0 |
| 65.00 | 3900 | 13.03 | 1.216 | 42.00 | 1.59 | 20.0 | 23.53 | 31.75 | 20.0 |
| 64.00 | 3840 | 13.05 | 1.197 | 42.00 | 1.59 | 21.0 | 24.71 | 33.33 | 21.0 |
| 63.00 | 3780 | 13.07 | 1.179 | 42.00 | 1.59 | 22.0 | 25.88 | 34.92 | 22.0 |
| 62.00 | 3720 | 13.09 | 1.160 | 42.00 | 1.59 | 23.0 | 27.06 | 36.51 | 23.0 |
| 61.00 | 3660 | 13.11 | 1.141 | 42.00 | 1.59 | 24.0 | 28.24 | 38.10 | 24.0 |
| 60.00 | 3600 | 13.13 | 1.123 | 42.00 | 1.59 | 25.0 | 29.41 | 39.68 | 25.0 |
| 59.00 | 3540 | 13.15 | 1.104 | 42.00 | 1.59 | 26.0 | 30.59 | 41.27 | 26.0 |
| 58.00 | 3480 | 13.16 | 1.085 | 42.00 | 1.59 | 27.0 | 31.76 | 42.86 | 27.0 |
| 57.00 | 3420 | 13.18 | 1.066 | 42.00 | 1.59 | 28.0 | 32.94 | 44.44 | 28.0 |
| 56.00 | 3360 | 13.20 | 1.048 | 42.00 | 1.59 | 29.0 | 34.12 | 46.03 | 29.0 |
| 55.00 | 3300 | 13.22 | 1.029 | 42.00 | 1.59 | 30.0 | 35.29 | 47.62 | 30.0 |
| 54.00 | 3240 | 13.24 | 1.010 | 42.00 | 1.59 | 31.0 | 36.47 | 49.21 | 31.0 |
| 53.00 | 3180 | 13.26 | 0.992 | 42.00 | 1.59 | 32.0 | 37.65 | 50.79 | 32.0 |
| 52.00 | 3120 | 13.28 | 0.973 | 42.00 | 1.59 | 33.0 | 38.82 | 52.38 | 33.0 |
| 51.00 | 3060 | 13.30 | 0.954 | 42.00 | 1.59 | 34.0 | 40.00 | 53.97 | 34.0 |
| 50.00 | 3000 | 13.31 | 0.935 | 42.00 | 1.59 | 35.0 | 41.18 | 55.56 | 35.0 |
| 49.00 | 2940 | 13.33 | 0.917 | 42.00 | 1.59 | 36.0 | 42.35 | 57.14 | 36.0 |
| 48.00 | 2880 | 13.35 | 0.898 | 42.00 | 1.59 | 37.0 | 43.53 | 58.73 | 37.0 |
| 47.00 | 2820 | 13.37 | 0.879 | 42.00 | 1.59 | 38.0 | 44.71 | 60.32 | 38.0 |
| 46.00 | 2760 | 13.39 | 0.861 | 42.00 | 1.59 | 39.0 | 45.88 | 61.90 | 39.0 |
| 45.00 | 2700 | 13.41 | 0.842 | 42.00 | 1.59 | 40.0 | 47.06 | 63.49 | 40.0 |
| 44.00 | 2640 | 13.43 | 0.823 | 42.00 | 1.59 | 41.0 | 48.24 | 65.08 | 41.0 |
| 43.00 | 2580 | 13.45 | 0.805 | 42.00 | 1.59 | 42.0 | 49.41 | 66.67 | 42.0 |
| 42.00 | 2520 | 13.46 | 0.786 | 42.00 | 1.59 | 43.0 | 50.59 | 68.25 | 43.0 |

| AmpHr | AmpMin | Ebatt | Vdiff | Chg I (A) | dT(Min) | SOC(AH) | SOC% | CumT | SOC(AH) |
|-------|--------|--------|-------|-----------|---------|---------|--------|--------|---------|
| 41.00 | 2460 | 13.48 | 0.767 | 42.00 | 1.59 | 44.0 | 51.76 | 69.84 | 44.0 |
| 40.00 | 2400 | 13.50 | 0.748 | 42.00 | 1.59 | 45.0 | 52.94 | 71.43 | 45.0 |
| 39.00 | 2340 | 13.52 | 0.730 | 42.00 | 1.59 | 46.0 | 54.12 | 73.02 | 46.0 |
| 38.00 | 2280 | 13.54 | 0.711 | 42.00 | 1.59 | 47.0 | 55.29 | 74.60 | 47.0 |
| 37.00 | 2220 | 13.56 | 0.692 | 42.00 | 1.59 | 48.0 | 56.47 | 76.19 | 48.0 |
| 36.00 | 2160 | 13.58 | 0.674 | 42.00 | 1.59 | 49.0 | 57.65 | 77.78 | 49.0 |
| 35.00 | 2100 | 13.60 | 0.655 | 41.45 | 1.61 | 50.0 | 58.82 | 79.37 | 50.0 |
| 34.00 | 2040 | 13.61 | 0.636 | 40.26 | 1.66 | 51.0 | 60.00 | 80.97 | 51.0 |
| 33.00 | 1980 | 13.63 | 0.617 | 39.08 | 1.71 | 52.0 | 61.18 | 82.63 | 52.0 |
| 32.00 | 1920 | 13.65 | 0.599 | 37.89 | 1.76 | 53.0 | 62.35 | 84.34 | 53.0 |
| 31.00 | 1860 | 13.67 | 0.580 | 36.71 | 1.82 | 54.0 | 63.53 | 86.09 | 54.0 |
| 30.00 | 1800 | 13.69 | 0.561 | 35.53 | 1.88 | 55.0 | 64.71 | 87.91 | 55.0 |
| 29.00 | 1740 | 13.71 | 0.543 | 34.34 | 1.94 | 56.0 | 65.88 | 89.79 | 56.0 |
| 28.00 | 1680 | 13.73 | 0.524 | 33.16 | 2.01 | 57.0 | 67.06 | 91.73 | 57.0 |
| 27.00 | 1620 | 13.74 | 0.505 | 31.97 | 2.09 | 58.0 | 68.24 | 93.74 | 58.0 |
| 26.00 | 1560 | 13.76 | 0.486 | 30.79 | 2.17 | 59.0 | 69.41 | 95.82 | 59.0 |
| 25.00 | 1500 | 13.78 | 0.468 | 29.60 | 2.25 | 60.0 | 70.59 | 97.99 | 60.0 |
| 24.00 | 1440 | 13.80 | 0.449 | 28.42 | 2.35 | 61.0 | 71.76 | 100.24 | 61.0 |
| 23.00 | 1380 | 13.82 | 0.430 | 27.24 | 2.45 | 62.0 | 72.94 | 102.59 | 62.0 |
| 22.00 | 1320 | 13.84 | 0.412 | 26.05 | 2.56 | 63.0 | 74.12 | 105.04 | 63.0 |
| 21.00 | 1260 | 13.86 | 0.393 | 24.87 | 2.68 | 64.0 | 75.29 | 107.59 | 64.0 |
| 20.00 | 1200 | 13.88 | 0.374 | 23.68 | 2.81 | 65.0 | 76.47 | 110.27 | 65.0 |
| 19.00 | 1140 | 13.89 | 0.355 | 22.50 | 2.96 | 66.0 | 77.65 | 113.09 | 66.0 |
| 18.00 | 1080 | 13.91 | 0.337 | 21.32 | 3.13 | 67.0 | 78.82 | 116.05 | 67.0 |
| 17.00 | 1020 | 13.93 | 0.318 | 20.13 | 3.31 | 68.0 | 80.00 | 119.18 | 68.0 |
| 16.00 | 960 | 13.95 | 0.299 | 18.95 | 3.52 | 69.0 | 81.18 | 122.49 | 69.0 |
| 15.00 | 900 | 13.97 | 0.281 | 17.76 | 3.75 | 70.0 | 82.35 | 126.01 | 70.0 |
| 14.00 | 840 | 13.99 | 0.262 | 16.58 | 4.02 | 71.0 | 83.53 | 129.76 | 71.0 |
| 13.00 | 780 | 14.01 | 0.243 | 15.39 | 4.33 | 72.0 | 84.71 | 133.79 | 72.0 |
| 12.00 | 720 | 14.03 | 0.225 | 14.21 | 4.69 | 73.0 | 85.88 | 138.12 | 73.0 |
| 11.00 | 660 | 14.04 | 0.206 | 13.03 | 5.12 | 74.0 | 87.06 | 142.81 | 74.0 |
| 10.00 | 600 | 14.06 | 0.187 | 11.84 | 5.63 | 75.0 | 88.24 | 147.93 | 75.0 |
| 9.00 | 540 | 14.08 | 0.168 | 10.66 | 6.26 | 76.0 | 89.41 | 153.56 | 76.0 |
| 8.00 | 480 | 14.10 | 0.150 | 9.47 | 7.04 | 77.0 | 90.59 | 159.81 | 77.0 |
| 7.00 | 420 | 14.119 | 0.131 | 8.29 | 8.04 | 78.0 | 91.76 | 166.85 | 78.0 |
| 6.00 | 360 | 14.138 | 0.112 | 7.11 | 9.38 | 79.0 | 92.94 | 174.89 | 79.0 |
| 5.00 | 300 | 14.156 | 0.094 | 5.92 | 11.26 | 80.0 | 94.12 | 184.27 | 80.0 |
| 4.00 | 240 | 14.175 | 0.075 | 4.74 | 14.07 | 81.0 | 95.29 | 195.53 | 81.0 |
| 3.00 | 180 | 14.194 | 0.056 | 3.55 | 18.77 | 82.0 | 96.47 | 209.61 | 82.0 |
| 2.00 | 120 | 14.213 | 0.037 | 2.37 | 28.15 | 83.0 | 97.65 | 228.37 | 83.0 |
| 1.00 | 60 | 14.231 | 0.019 | 1.18 | 56.30 | 84.0 | 98.82 | 256.52 | 84.0 |
| 0.00 | 0 | 14.250 | 0.000 | 0.00 | 0.00 | 85.0 | 100.00 | 312.82 | 85.0 |

5th Order fit coefficients

| | |
|----|-------------------------|
| C0 | 0.92853651127600000000 |
| C1 | 0.46942364534600000000 |
| C2 | 0.00561660951656000000 |
| C3 | -0.00000625335604943000 |
| C4 | 0.00000002129775133580 |
| C5 | -0.00000000002462235748 |

10.80577

