

the power of tomorrow

CLEAN ENERGY DEFINES THE WORLD THAT WE LIVE IN TODAY AND TOMORROW.
LEAD CRYSTAL® TECHNOLOGY CREATES POWER THAT IS CLEAN SAFE AND
HIGH PERFORMING FOR A BETTER FUTURE

**LEAD
CRYSTAL®**
BATTERIES

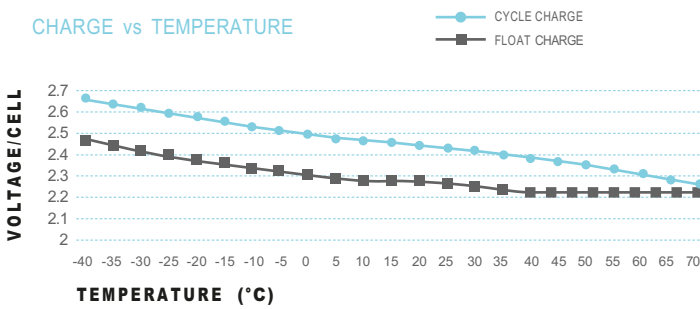
LEAD CRYSTAL[®] BATTERIES



DISCHARGE CURRENT AND END VOLTAGE

| Discharge current (A) | End voltage (V) |
|--|-----------------|
| 0.05C or below or Intermittent discharge | 1.9 |
| 0.05C of current close to it | 1.85 |
| 0.1C of current close to it | 1.8 |
| 0.2C of current close to it | 1.75 |
| From 0.2C to 0.5C | 1.7 |
| From 0.5C to 1C | 1.6 |
| From 1C to 3C | 1.5 |
| Current in excess of 3C | 1.3 |

CHARGE vs TEMPERATURE



CHARGE vs TEMPERATURE CHART

| temperature | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Cycle Charge | 2.66 | 2.64 | 2.62 | 2.60 | 2.58 | 2.56 | 2.54 | 2.52 | 2.50 | 2.48 | 2.47 | 2.47 | 2.45 | 2.45 | 2.43 | 2.41 | 2.39 | 2.37 | 2.35 | 2.33 | 2.31 | 2.29 | 2.27 | |
| Float Charge | 2.46 | 2.44 | 2.42 | 2.40 | 2.38 | 2.36 | 2.34 | 2.32 | 2.31 | 2.30 | 2.29 | 2.29 | 2.29 | 2.27 | 2.26 | 2.24 | 2.23 | 2.23 | 2.23 | 2.23 | 2.23 | 2.23 | 2.23 | 2.23 |

CONSTANT CURRENT DISCHARGE CHARACTERISTICS: UNITS AMPERES (25°C)

| End Voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|----------------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| 1.60V | 4053.60 | 2586.0 | 1704.0 | 1282.5 | 1048.5 | 625.50 | 454.50 | 353.25 | 300.00 | 258.00 | 195.00 | 157.50 | 132.75 | 82.95 | 69.50 |
| 1.67V | 3488.94 | 2344.5 | 1579.5 | 1215.0 | 1015.5 | 597.00 | 432.00 | 349.50 | 285.00 | 255.00 | 192.00 | 154.50 | 132.75 | 82.95 | 69.50 |
| 1.70V | 3333.06 | 2272.5 | 1530.0 | 1200.0 | 981.00 | 588.00 | 423.00 | 346.50 | 283.50 | 253.50 | 190.50 | 153.00 | 132.75 | 82.80 | 69.30 |
| 1.75V | 3029.94 | 2127.0 | 1470.0 | 1153.5 | 949.50 | 565.50 | 411.00 | 337.50 | 274.50 | 247.50 | 187.50 | 151.50 | 131.55 | 82.80 | 69.15 |
| 1.80V | 2678.94 | 1948.5 | 1414.5 | 1111.5 | 909.00 | 546.00 | 405.00 | 331.50 | 268.50 | 241.50 | 183.00 | 150.00 | 128.70 | 82.50 | 68.85 |
| 1.83V | 2338.56 | 1780.5 | 1306.5 | 1033.0 | 859.50 | 522.00 | 390.00 | 318.00 | 256.50 | 232.50 | 177.00 | 145.50 | 125.25 | 82.20 | 66.90 |
| 1.85V | 1999.44 | 1612.5 | 1200.0 | 955.50 | 811.50 | 499.50 | 375.00 | 306.00 | 246.00 | 225.00 | 171.00 | 141.45 | 121.65 | 82.05 | 64.95 |

DISCHARGE DATA WITH CONSTANT POWER UNITS: WATTS PER CELL (25°C)

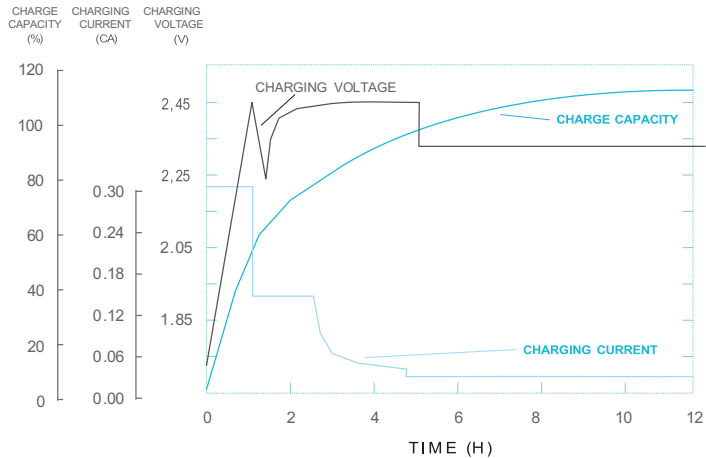
| End Voltage per cell | 5min | 15min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 12h | 20h | 24h |
|----------------------|---------|---------|---------|---------|---------|---------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1.60V | 6721.44 | 4525.52 | 3097.49 | 2361.01 | 1956.00 | 1194.00 | 870 | 676.47 | 576.00 | 505.50 | 382.50 | 311.75 | 261.00 | 162.00 | 135.90 |
| 1.67V | 6004.44 | 4219.50 | 2899.51 | 2259.00 | 1905.00 | 1156.79 | 849 | 673.50 | 558.00 | 499.50 | 374.93 | 304.50 | 261.00 | 162.00 | 135.90 |
| 1.70V | 5810.83 | 4109.93 | 2820.02 | 2235.00 | 1850.98 | 1126.51 | 814.5 | 669.00 | 547.50 | 496.49 | 373.70 | 301.50 | 261.00 | 162.00 | 135.75 |
| 1.75V | 5364.03 | 3863.96 | 2726.99 | 2166.02 | 1800.01 | 1089.07 | 795 | 658.50 | 534.00 | 489.00 | 366.00 | 298.46 | 261.00 | 162.00 | 135.60 |
| 1.80V | 4862.98 | 3561.01 | 2633.97 | 2096.99 | 1732.49 | 1053.00 | 786 | 646.53 | 520.50 | 481.50 | 360.00 | 295.50 | 253.50 | 160.50 | 135.30 |
| 1.83V | 4294.56 | 3296.95 | 2459.98 | 1965.00 | 1645.49 | 1013.99 | 759 | 625.50 | 502.50 | 468.00 | 348.01 | 287.99 | 247.50 | 160.50 | 131.85 |
| 1.85V | 3725.99 | 3032.89 | 2285.99 | 1833.01 | 1560.00 | 974.99 | 732 | 603.00 | 483.00 | 454.50 | 336.00 | 280.50 | 241.50 | 159.00 | 128.55 |

SPECIFICATION

| | | | |
|-------------------------------|------------------------------------|--|---------|
| Nominal Voltage | 2V | | |
| Rated Capacity (10 hour rate) | 1500 AH | | |
| Dimension | Total Height (top of terminal) | 347 mm | 13.66" |
| | Height | 342mm | 13.46" |
| | Length | 401 mm | 15.79" |
| | Width | 351 mm | 13.82" |
| Weight | Approximately 98.5 kg / 217.15 lbs | | |
| Capacity | 120 hour rate (15A) | 1800 AH | |
| | 25°C | 20 hour rate (82.5A) | 1650 AH |
| | | 10 hour rate (150A) | 1500 AH |
| Internal Resistance | Fully charged Battery (25°C) | 0.10mO | |
| Self-Discharge 25°C | Capacity after 3 month storage | 95% | |
| | Capacity after 6 month storage | 85% | |
| | Capacity after 12 month storage | 80% | |
| Max Discharge Current 25°C | 15000A (5S) | | |
| Terminal | Standard | F4 | |
| | Optional | | |
| Charging (Constant Voltage) | Cycle | Initial Charging Current 450A 2.45V/ (25°C) | |
| | Float | 2.27V/ (25°C) | |

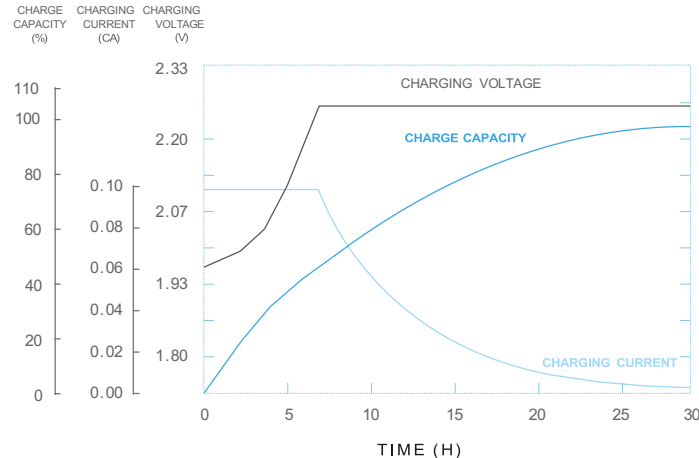
CYCLE CHARGE CHARACTERISTIC (25°C)

REGULAR CYCLE CHARGE CHARACTERISTICS 77°F (25°C)



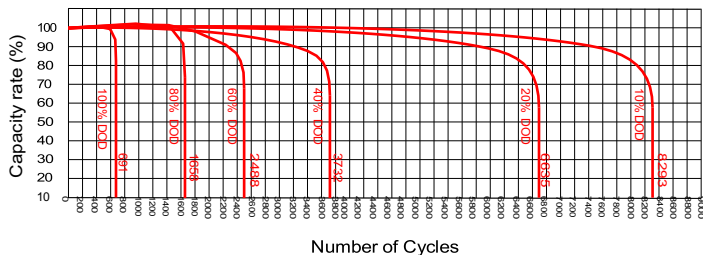
FLOATING CHARGE CHARACTERISTIC (25°C)

FLOATING CHARGE CHARACTERISTICS 77°F (25°C)

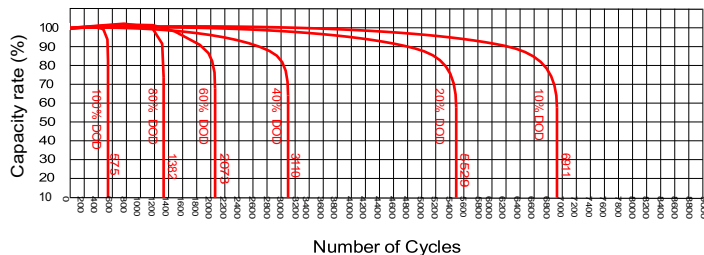


CYCLE LIFE CURVE GRAPH

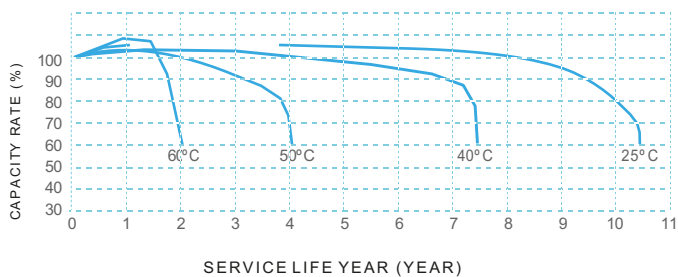
Cycle life curve graph (25°C) 2V



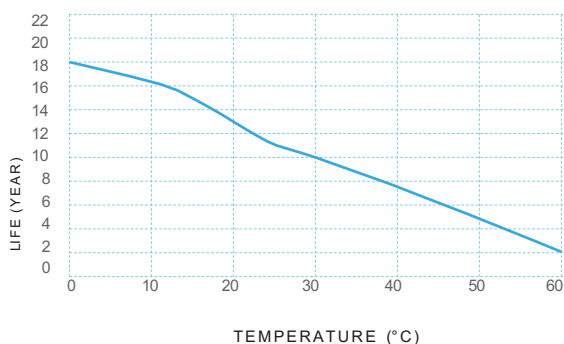
Cycle life curve graph (40°C) 2V



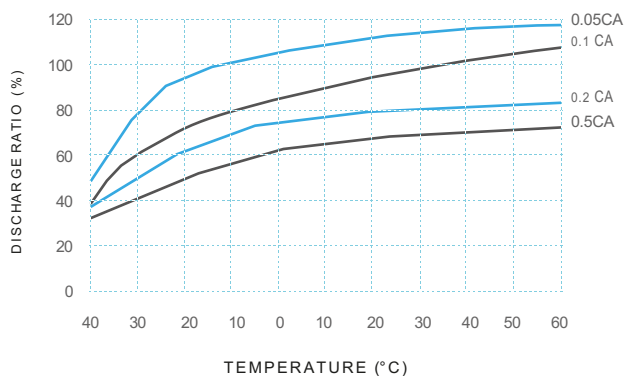
TEMPERATURE & FLOAT SERVICE LIFE



FLOAT SERVICE LIFE CURVE GRAPH



TEMPERATURE & DISCHARGE CAPACITY



CNFJ-1500 2V/1500Ah

LEAD CRYSTAL®: CHANGING THE FUTURE

Performance Robust, resilient, high performing. Lead Crystal® batteries can be discharged deeper, cycled more often (also in extreme temperatures) and have a longer service life. They recover to full rated capacity over and over again.

Technology A unique micro-porous high absorbent mat (AGM), high-purity lead calcium selenium plates, safe SiO₂ electrolyte solution that solidifies into a white crystalline powder when charged/discharged.

Cleaner & safe Less acid, no cadmium, no antimony. Lead Crystal® batteries are up to 99% recyclable and are classified as non-hazardous goods for transport.

Markets Lead Crystal® batteries are being used in telecoms, ups, petrochem/marine, defence, renewable energy, health care, manufacturing, transportation and electric motion (wheelchairs, golf carts & trolleys).



[https://
leadcrystaltechnologies.com](https://leadcrystaltechnologies.com)