CNFJ-1000 2V/1000Ah

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

POWERED BY
Betta Batteries

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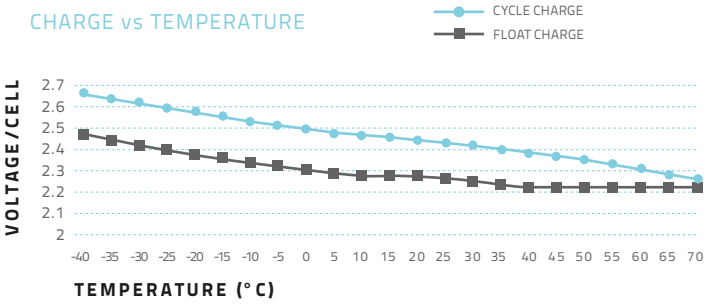
SPECIFICATION

Nominal Voltage		2V	
Rated Capacity (10 hour rate)		1000 AH	
Dimension	Total Height (top of terminal)	340 mm	13.37"
	Height	330 mm	12.99"
	Length	475 mm	18.70"
	Width	175 mm	6.89"
Weight		Approximately 61 kg / 134.48 lbs	
Capacity 25°C	120 hour rate (10A)	1200 AH	
	20 hour rate (55A)	1100 AH	
	10 hour rate (100A)	1000 AH	
Internal Resistance	Fully charged Battery (25°C)	0.15mΩ	
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	10000A (5S)		
Terminal	Standard	F4	
	Optional		
Charging (Constant Voltage)	Cycle	Initial Charging Current 300A 2.45V/ (25°C)	
	Float	2.27V/ (25°C)	

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 (voltage/cell)	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

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

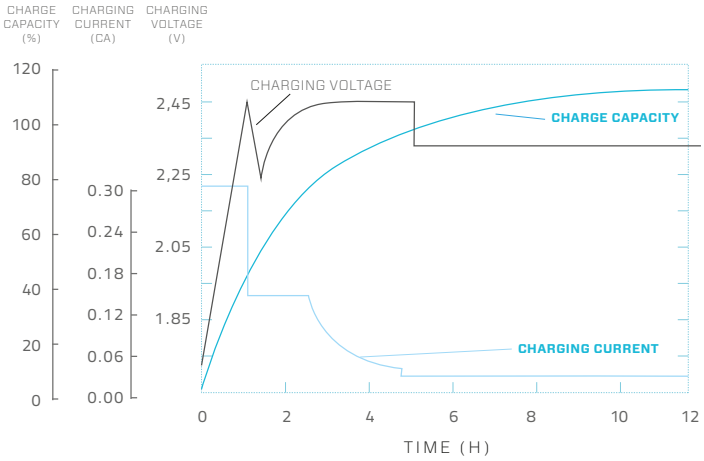
End Voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	3669	1942	1173	855	689	394	286	224	191	163	124	103	86.8	56.5	46.1
1.67V	3410	1878	1156	849	687	393	281	223	189	161	124	102	86.7	56.3	46.0
1.70V	3375	1849	1144	838	682	389	279	222	186	160	123	102	86.4	56.1	45.9
1.75V	3092	1791	1133	832	670	382	278	219	184	158	123	101	86.0	55.9	45.8
1.80V	2774	1676	1086	809	653	376	272	214	182	157	122	100	85.5	54.0	45.7
1.83V	2652	1537	1069	780	624	372	266	209	178	151	119	95.9	82.0	53.4	45.1
1.85V	2485	1491	1000	751	606	357	259	206	173	146	118	94.8	80.9	52.8	44.7

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	6131	3409	2196	1600	1287	745	545	431	364	313	241	199	168	112	91.8
1.67V	5837	3357	2107	1589	1288	745	538	430	364	312	241	199	168	112	91.8
1.70V	5802	3334	2106	1580	1277	739	536	429	358	310	239	197	166	111	91.8
1.75V	5403	3294	2108	1572	1271	734	535	428	357	308	238	196	166	111	91.3
1.80V	4958	3126	2063	1560	1265	733	530	421	355	308	237	195	164	108	91.3
1.83V	4785	2872	2045	1514	1213	728	520	413	351	298	236	189	163	107	90.7
1.85V	4432	2808	1901	1456	1179	710	505	408	341	292	226	187	160	106	90.1

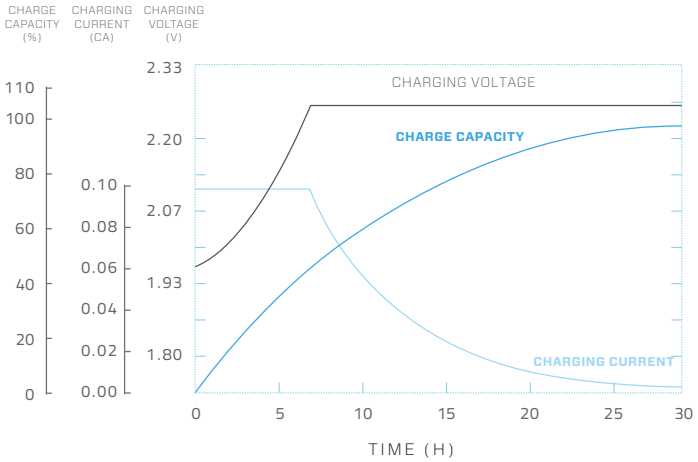
CYCLE CHARGE CHARACTERISTIC (25°C)

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

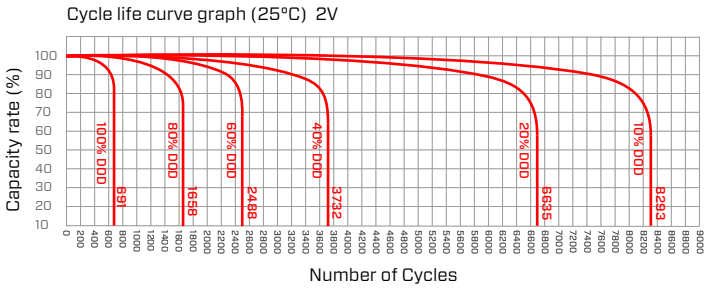


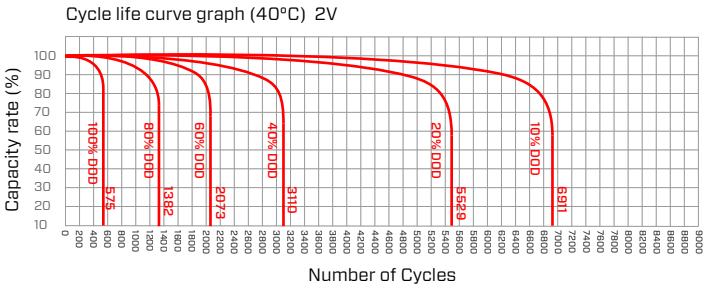
FLOATING CHARGE CHARACTERISTIC (25°C)

FLOATING CHARGE CHARACTERISTICS 77°F (25°C)

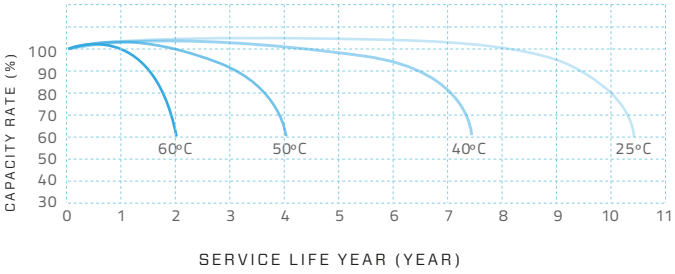


CYCLE LIFE CURVE GRAPH

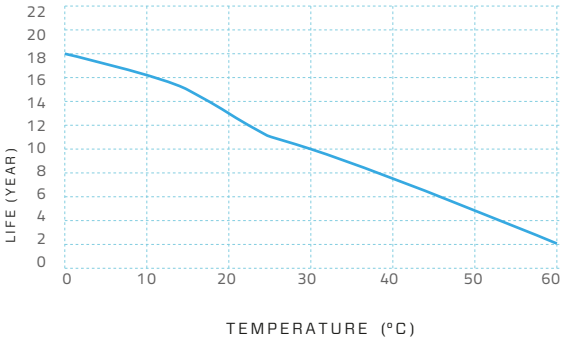




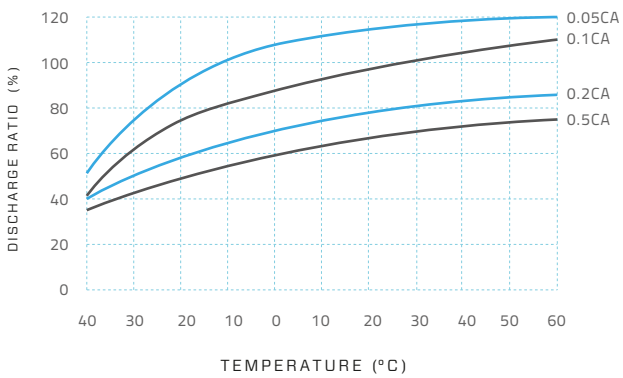
TEMPERATURE & FLOAT SERVICE LIFE



FLOAT SERVICE LIFE CURVE GRAPH



TEMPERATURE & DISCHARGE CAPACITY



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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).

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