6-CNFJ-100 12V/100Ah

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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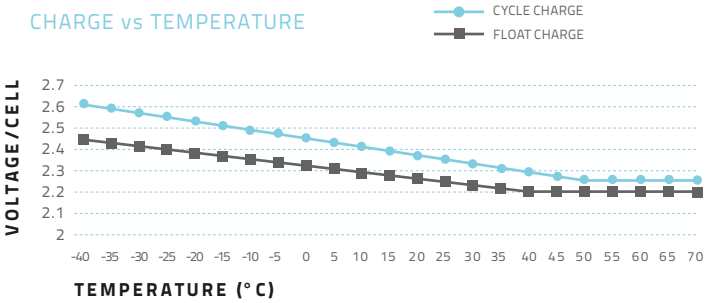
SPECIFICATION

Nominal Voltage		12V	
Rated Capacity (10 hour rate)		100 AH	
Dimension	Total Height (top of terminal)	220 mm	8.66"
	Height	220 mm	8.66"
	Length	330 mm	12.99"
	Width	172 mm	6.77"
Weight		Approximately 30 kg / 66.08 lbs	
Capacity 20°C	120 hour rate (1.2A)	120 AH	
	20 hour rate (5.5A)	110 AH	
	10 hour rate (10A)	100 AH	
Internal Resistance	Fully charged Battery (20°C)	6mΩ	
Self-Discharge 20°C	Capacity after 3 month storage	95%	
	Capacity after 6 month storage	85%	
	Capacity after 12 month storage	80%	
Max Discharge Current 20°C	1000A (5S)		
Terminal	Standard	F3	
	Optional		
Charging (Constant Voltage)	Cycle	Initial Charging Current 20A or smaller 14.4V - 14.8V/ (20°C)	
	Float	13.5V - 13.8V/ (20°C)	

DISCHARGE CURRENT AND END VOLTAGE

Discharge current (A)	End voltage (V)
0.05C or below or Intermittent discharge	11.4
0.05C of current close to it	11.1
0.1C of current close to it	10.8
0.2C of current close to it	10.5
From 0.2C to 0.5C	10.2
From 0.5C to 1C	9.6
From 1C to 3C	9.0
Current in excess of 3C	7.8

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	2.61	2.59	2.57	2.55	2.53	2.51	2.49	2.47	2.45	2.43	2.41	2.39	2.37	2.35	2.33	2.31	2.29	2.27	2.25	2.25	2.25	2.25	2.25
Float Charge (voltage/cell)	2.45	2.43	2.42	2.4	2.39	2.37	2.36	2.34	2.33	2.31	2.3	2.28	2.27	2.25	2.24	2.22	2.21	2.21	2.21	2.21	2.21	2.21	2.21

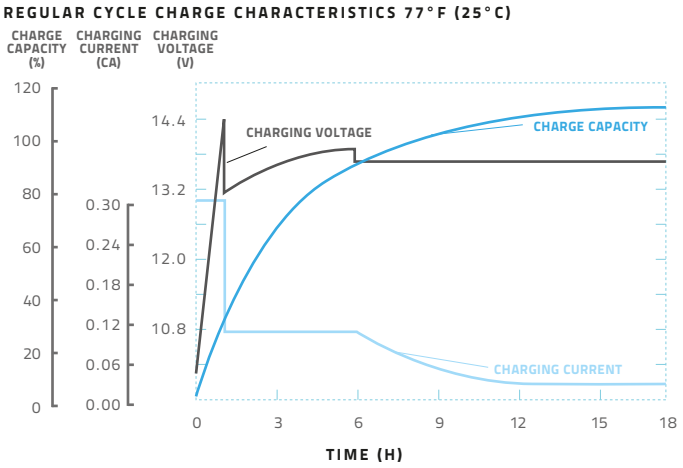
CONSTANT CURRENT DISCHARGE CHARACTERISTICS: UNITS AMPERES (25°C)

End Voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	366.96	194.20	117.34	85.55	68.90	39.48	28.67	22.49	19.18	16.30	12.43	10.35	8.68	5.65	4.62
1.67V	341.04	187.84	115.60	84.96	68.78	39.31	28.15	22.37	18.90	16.19	12.41	10.23	8.67	5.64	4.60
1.70V	337.56	184.96	114.44	83.81	68.21	38.96	27.98	22.25	18.61	16.01	12.37	10.23	8.64	5.62	4.60
1.75V	309.24	179.16	113.30	83.24	67.05	38.21	27.86	21.97	18.44	15.90	12.31	10.12	8.60	5.60	4.59
1.80V	277.44	167.60	108.66	80.92	65.32	37.63	27.75	21.91	18.21	15.72	12.25	10.00	8.56	5.40	4.58
1.83V	265.20	153.76	106.94	78.04	62.43	37.28	26.65	20.98	17.80	15.14	11.99	9.60	8.21	5.35	4.52
1.85V	248.52	149.12	100.00	75.15	60.69	35.78	25.95	20.69	17.34	14.64	11.85	9.48	8.09	5.29	4.48

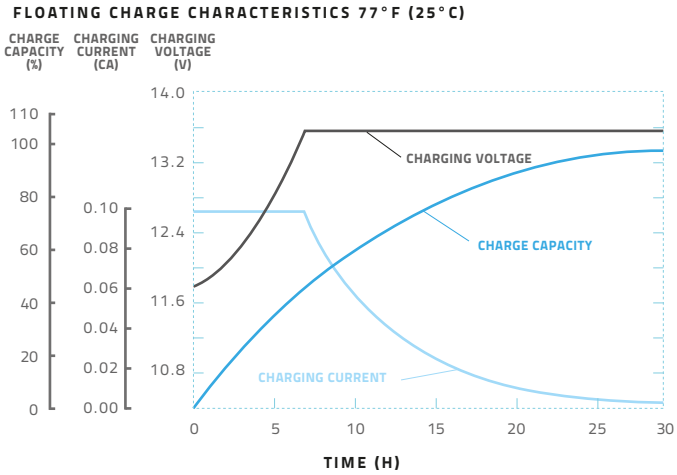
DISCHARGE DATA WITH CONSTANT POWER UNITS: WATTS PER CELL (25°C)

End Voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	613.20	341.00	219.62	160.09	128.79	74.56	54.50	43.17	36.47	31.33	24.16	20.00	16.82	11.21	9.19
1.67V	583.73	335.79	210.74	158.94	128.88	74.56	53.81	43.12	36.47	31.27	24.16	19.94	16.82	11.21	9.19
1.70V	580.26	333.48	210.64	158.94	127.72	73.98	53.69	42.96	35.89	31.04	23.99	19.77	16.65	11.15	9.19
1.75V	540.38	329.43	210.88	158.94	127.15	73.40	53.58	42.88	35.78	30.81	23.87	19.63	16.65	11.15	9.13
1.80V	495.89	312.67	206.33	156.05	126.57	73.40	53.52	42.77	35.54	30.81	23.81	19.54	16.65	10.87	9.13
1.83V	478.54	287.24	204.60	151.42	121.37	72.82	52.02	41.32	35.14	29.82	23.81	18.96	16.36	10.75	9.07
1.85V	443.29	280.88	190.15	145.65	117.90	71.09	50.57	40.80	34.16	29.24	22.89	18.78	16.07	10.63	9.02

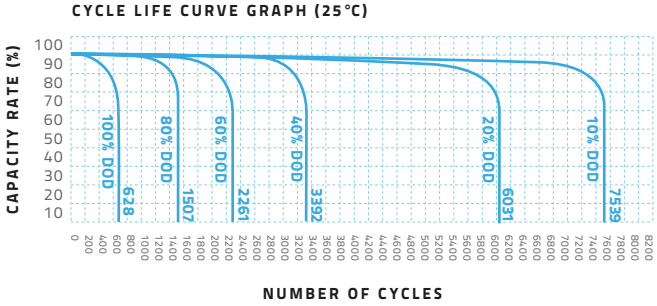
CYCLE CHARGE CHARACTERISTIC (25°C)

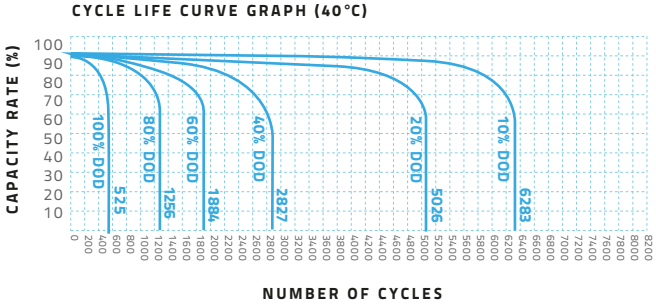


FLOATING CHARGE CHARACTERISTIC (25°C)

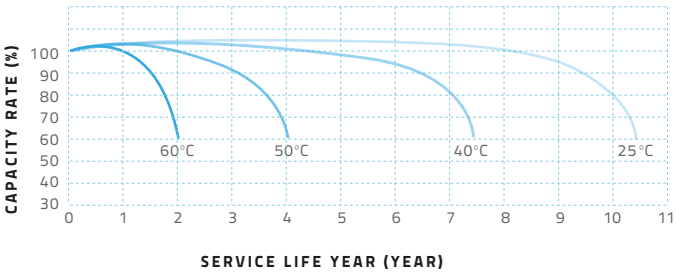


CYCLE LIFE CURVE GRAPH

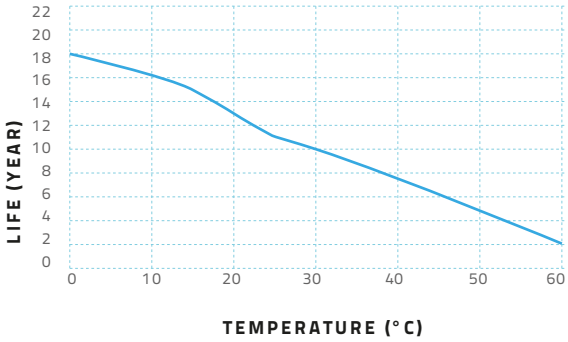




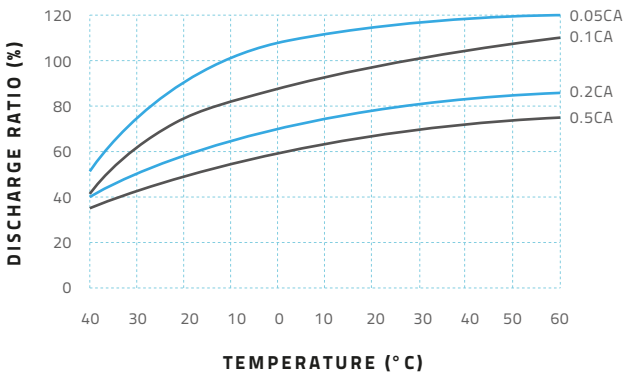
TEMPERATURE & FLOAT SERVICE LIFE



FLOAT SERVICE LIFE CURVE GRAPH



TEMPERATURE & DISCHARGE CAPACITY



6-CNFJ-100 12V/100Ah

LEAD CRYSTAL®: WORLD'S BEST PERFORMING BATTERY

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).

www.leadcrystalbatteries.org