

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

LEAD CRYSTAL[®] BATTERIES

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SPECIFICATION

Nominal Voltage	6V		
Rated Capacity (10 hour rate)	7.2 AH		
Dimension	Total Height (top of terminal)	100 mm	3.94"
	Height	94 mm	3.7"
	Length	151 mm	5.94"
	Width	35 mm	1.38"

Weight	Approximately 1.2 kg / 2.64 lbs		
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Capacity 25°C	120 hour rate (70mA)	8.4 AH
	20 hour rate (390mA)	7.8 AH
	10 hour rate (720mA)	7.2 AH

Internal Resistance	Fully charged Battery (25°C)	16mΩ
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Self-Discharge 25°C	Capacity after 3 month storage	95%
	Capacity after 6 month storage	85%
	Capacity after 12 month storage	80%

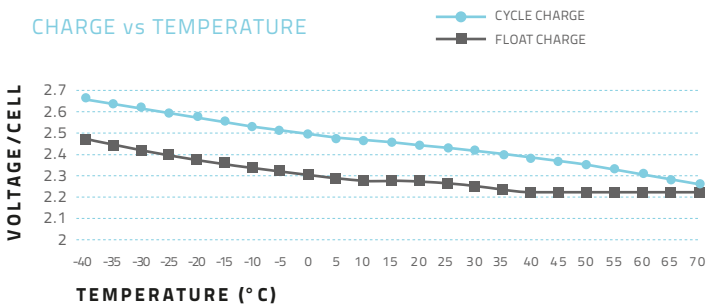
Max Discharge Current 25°C	72A (5S)	
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Terminal	Standard	F1
	Optional	F2
Charging (Constant Voltage)	Cycle	Initial Charging Current 2.16A 7.4V / (25°C)
	Float	6.8V / (25°C)

DISCHARGE CURRENT AND END VOLTAGE

Discharge current (A)	End voltage (V)
0.05C or below or Intermittent discharge	5.70
0.05C of current close to it	5.55
0.1C of current close to it	5.40
0.2C of current close to it	5.25
From 0.2C to 0.5C	5.10
From 0.5C to 1C	4.80
From 1C to 3C	4.50
Current in excess of 3C	3.90

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	2.27	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	26.421	13.982	8.448	6.159	4.961	2.842	2.064	1.619	1.381	1.174	0.895	0.745	0.625	0.407	0.333
1.67V	24.555	13.524	8.323	6.117	4.952	2.830	2.027	1.611	1.361	1.165	0.894	0.737	0.624	0.406	0.331
1.70V	24.304	13.317	8.240	6.035	4.911	2.805	2.014	1.602	1.340	1.153	0.891	0.737	0.622	0.405	0.331
1.75V	22.265	12.900	8.158	5.993	4.828	2.751	2.006	1.582	1.328	1.145	0.886	0.728	0.619	0.403	0.330
1.80V	19.976	12.067	7.824	5.826	4.703	2.709	1.998	1.577	1.311	1.132	0.882	0.720	0.616	0.389	0.330
1.83V	19.094	11.071	7.700	5.619	4.495	2.684	1.919	1.511	1.282	1.090	0.864	0.691	0.591	0.385	0.325
1.85V	17.893	10.737	7.200	5.411	4.370	2.576	1.869	1.490	1.249	1.054	0.853	0.683	0.583	0.381	0.323

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

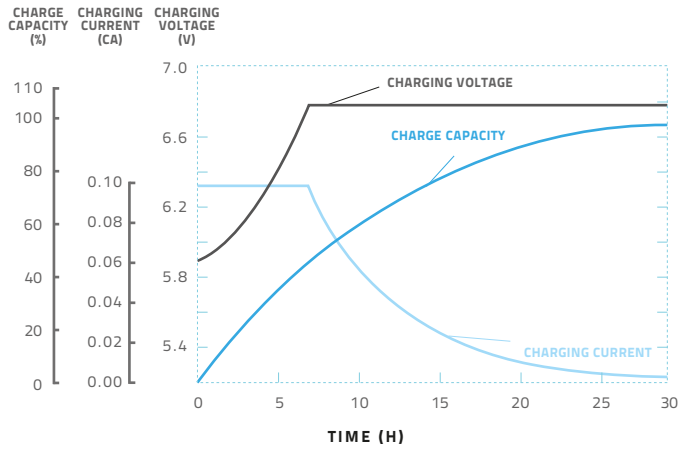
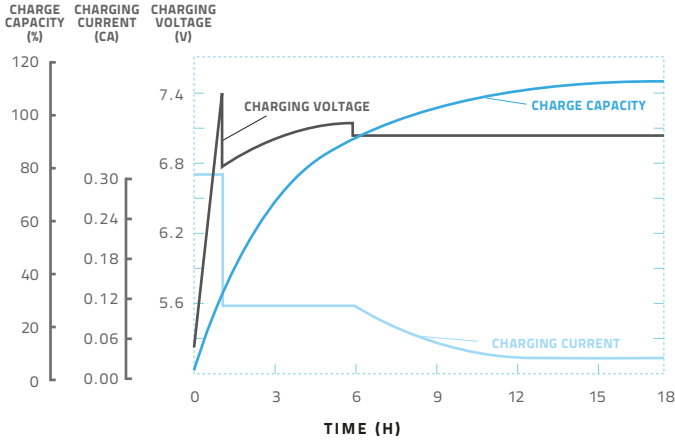
End Voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	44.150	24.552	15.813	11.527	9.273	5.368	3.924	3.108	2.626	2.255	1.739	1.440	1.211	0.807	0.662
1.67V	42.029	24.177	15.174	11.444	9.280	5.368	3.874	3.104	2.626	2.251	1.739	1.436	1.211	0.807	0.662
1.70V	41.779	24.010	15.166	11.444	9.196	5.326	3.866	3.093	2.584	2.235	1.727	1.423	1.198	0.803	0.662
1.75V	38.908	23.719	15.183	11.443	9.155	5.285	3.858	3.088	2.576	2.218	1.719	1.414	1.198	0.803	0.657
1.80V	35.704	22.512	14.856	11.235	9.113	5.285	3.853	3.079	2.559	2.218	1.714	1.407	1.198	0.782	0.657
1.83V	34.455	20.681	14.731	10.903	8.739	5.243	3.745	2.975	2.530	2.147	1.714	1.365	1.178	0.774	0.653
1.85V	31.917	20.224	13.691	10.487	8.489	5.118	3.641	2.938	2.459	2.106	1.648	1.352	1.157	0.766	0.649

CYCLE CHARGE CHARACTERISTIC (25°C)

FLOATING CHARGE CHARACTERISTIC (25°C)

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

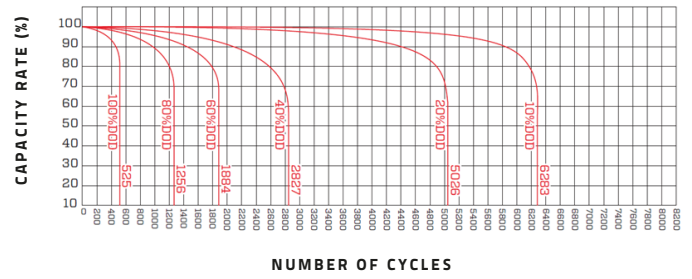
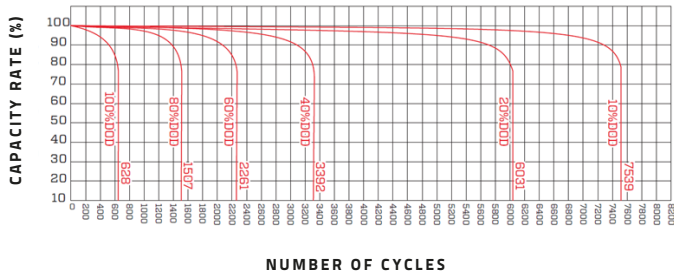
FLOATING CHARGE CHARACTERISTICS 77°F (25°C)



CYCLE LIFE CURVE GRAPH

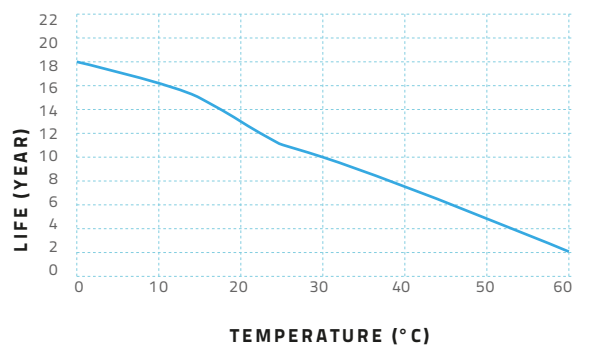
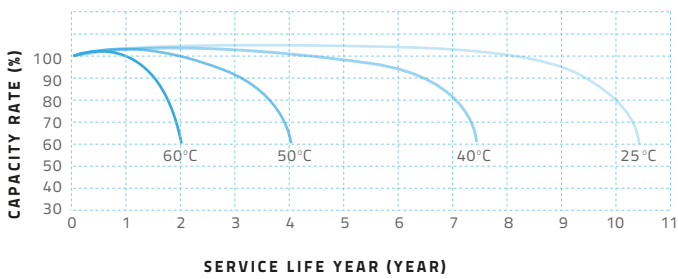
CYCLE LIFE CURVE GRAPH (25°C)

CYCLE LIFE CURVE GRAPH (40°C)

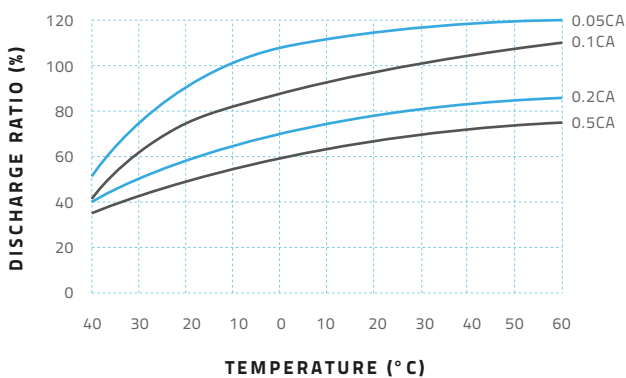


TEMPERATURE & FLOAT SERVICE LIFE

FLOAT SERVICE LIFE CURVE GRAPH



TEMPERATURE & DISCHARGE CAPACITY



3-CNFJ-7.2 6V/7.2Ah

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).



www.leadcrystalbatteries.com