3-CNFT-180 6V/180Ah

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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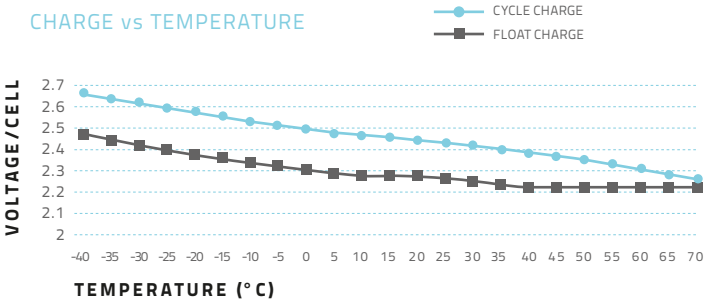
SPECIFICATION

Nominal Voltage		6V	
Rated Capacity (10 hour rate)		180 AH	
Dimension	Total Height (top of terminal)	226 mm	8.89"
	Height	222 mm	8.74"
	Length	306 mm	12.04"
	Width	168 mm	6.61"
Weight		Approximately 28.5 kg / 62.83 lbs	
Capacity 25°C	120 hour rate (1.8A)	216 AH	
	20 hour rate (9.75A)	195 AH	
	10 hour rate (18A)	180 AH	
Internal Resistance	Fully charged Battery (25°C)	2mΩ	
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	1800A (5S)		
Terminal	Standard	F3	
	Optional		
Charging (Constant Voltage)	Cycle	Initial Charging Current 54A 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 (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)

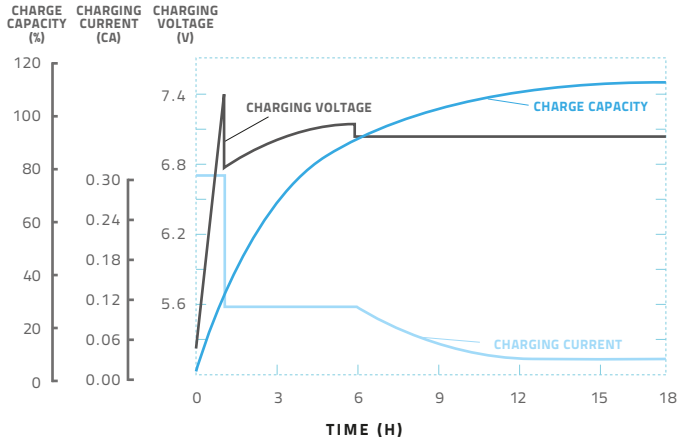
End Voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	660.53	349.56	211.21	153.98	124.02	71.06	51.61	40.47	34.52	29.34	22.37	18.62	15.63	10.18	8.31
1.67V	613.87	338.11	208.08	152.93	123.80	70.75	50.67	40.27	34.02	29.13	22.34	18.42	15.61	10.14	8.28
1.70V	607.61	332.93	205.99	150.86	122.78	70.13	50.36	40.05	33.50	28.82	22.27	18.42	15.56	10.11	8.27
1.75V	556.63	322.49	203.94	149.83	120.69	68.77	50.15	39.55	33.19	28.61	22.16	18.21	15.48	10.07	8.26
1.80V	499.39	301.68	195.59	145.66	117.57	67.73	49.94	39.43	32.77	28.30	22.06	18.00	15.40	9.73	8.24
1.83V	477.36	276.77	192.49	140.47	112.37	67.11	47.96	37.77	32.05	27.26	21.59	17.27	14.77	9.62	8.13
1.85V	447.34	268.42	180.00	135.26	109.24	64.40	46.72	37.25	31.22	26.36	21.33	17.06	14.57	9.52	8.06

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	1103.8	613.8	395.3	288.2	231.8	134.2	98.1	77.7	65.6	56.4	43.5	36.0	30.3	20.2	16.5
1.67V	1050.7	604.4	379.3	286.1	232.0	134.2	96.9	77.6	65.6	56.3	43.5	35.9	30.3	20.2	16.5
1.70V	1044.5	600.3	379.2	286.1	229.9	133.2	96.6	77.3	64.6	55.9	43.2	35.6	30.0	20.1	16.5
1.75V	972.7	593.0	379.6	286.1	228.9	132.1	96.4	77.2	64.4	55.4	43.0	35.3	30.0	20.1	16.4
1.80V	892.6	562.8	371.4	280.9	227.8	132.1	96.3	77.0	64.0	55.4	42.9	35.2	30.0	19.6	16.4
1.83V	861.4	517.0	368.3	272.6	218.5	131.1	93.6	74.4	63.3	53.7	42.9	34.1	29.4	19.4	16.3
1.85V	797.9	505.6	342.3	262.2	212.2	128.0	91.0	73.4	61.5	52.6	41.2	33.8	28.9	19.1	16.2

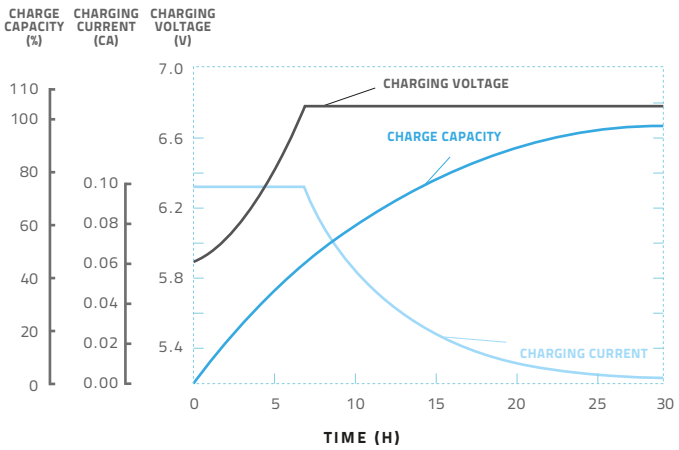
CYCLE CHARGE CHARACTERISTIC (25°C)

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



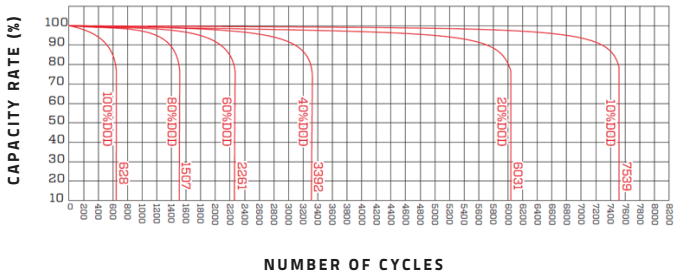
FLOATING CHARGE CHARACTERISTIC (25°C)

FLOATING CHARGE CHARACTERISTICS 77°F (25°C)

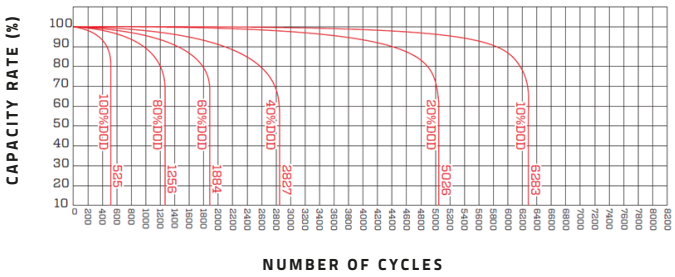


CYCLE LIFE CURVE GRAPH

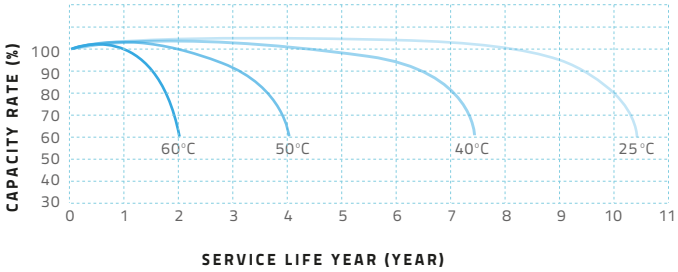
CYCLE LIFE CURVE GRAPH (25°C)



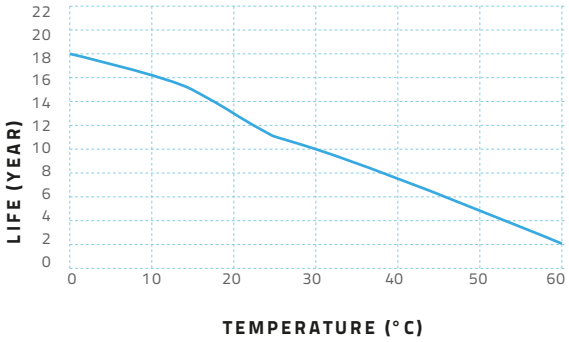
CYCLE LIFE CURVE GRAPH (40°C)



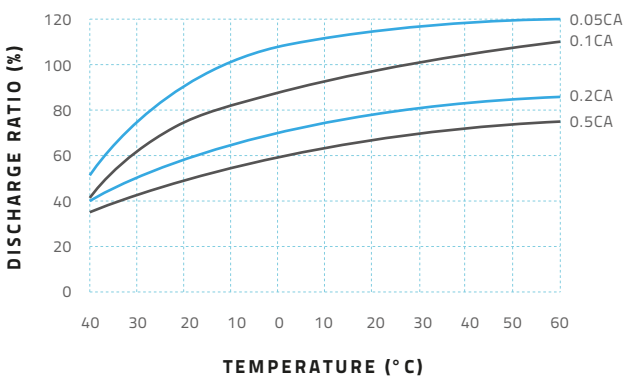
TEMPERATURE & FLOAT SERVICE LIFE



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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