

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 (3 hour rate)	210 AH		
Dimension	Total Height (top of terminal)	275 mm	10.82"
	Height	275 mm	10.82"
	Length	260 mm	10.23"
	Width	180 mm	7.09"

Weight	Approximately 35 kg / 77.09 lbs		
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Capacity 25°C	10 hour rate (26A)	260 AH
	5 hour rate (45A)	225 AH
	2 hour rate (90A)	180 AH

Internal Resistance	Fully charged Battery (25°C)	=<1.5mΩ
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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	2100A (5S)
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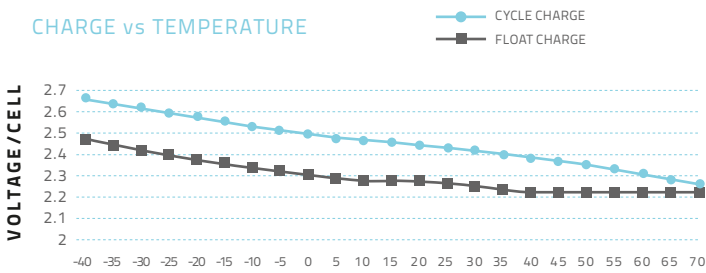
Terminal	Standard	M8
	Optional	

Charging (Constant Voltage)	Cycle	Initial Charging Current 42A 7.35V (25°C)
	Float	6.85V (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)

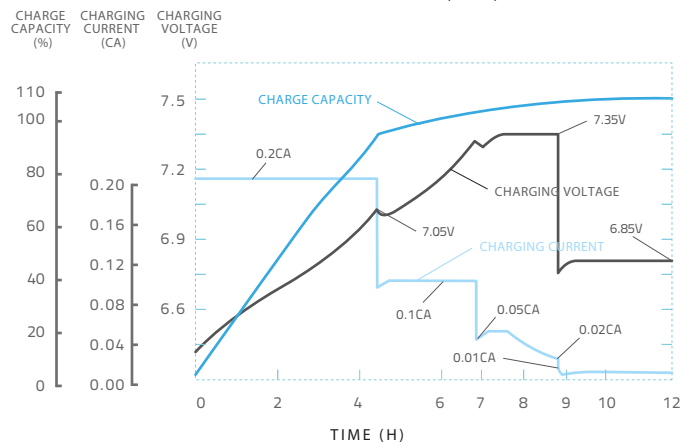
End Voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	662	422	278	209	144	96.7	73.5	58.6	49.0	44.9	35.7	27.3	24.0	14.9	12.0
1.67V	569	382	257	198	142	95.5	71.8	57.3	48.0	42.8	34.4	26.7	23.6	14.6	12.0
1.70V	544	371	249	196	141	94.3	71.0	56.2	47.2	41.2	33.4	26.5	23.4	14.5	12.0
1.75V	494	347	240	188	140	93.1	70.2	55.1	46.5	39.6	32.5	26.2	23.1	14.3	11.9
1.80V	437	318	231	181	139	91.8	68.6	54.1	45.5	39.4	31.8	26.0	22.7	14.0	11.9
1.83V	381	290	213	168	135	90.6	66.9	51.9	44.5	37.9	30.6	25.2	21.7	13.9	11.5
1.85V	326	263	196	156	132	89.4	64.5	49.9	43.6	36.7	29.6	24.5	21.0	13.7	11.2

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

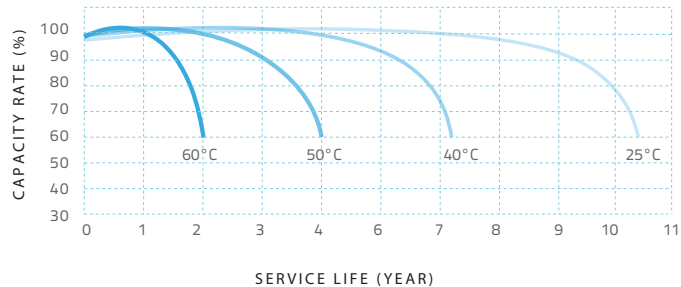
End Voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	1092	735	503	383	267	194	136	109	93.6	82.1	65.9	53.7	45.0	27.9	23.4
1.67V	975	685	471	367	266	187	136	109	91.6	81.1	64.6	52.5	45.0	27.9	23.4
1.70V	944	667	458	363	266	183	132	108	90.3	80.6	64.4	51.9	45.0	27.9	23.4
1.75V	871	627	443	351	265	176	130	107	89.6	79.4	63.1	51.4	45.0	27.9	23.3
1.80V	790	578	428	340	264	171	129	105	88.4	78.2	62.0	50.9	43.7	27.6	23.3
1.83V	697	535	399	319	263	164	128	101	87.6	76.0	60.0	49.6	42.6	27.6	22.7
1.85V	605	492	371	297	262	158	127	97.9	86.5	73.8	57.9	48.3	41.64	27.4	22.1

CHARGE CHARACTERISTIC 77°F (25°C)

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

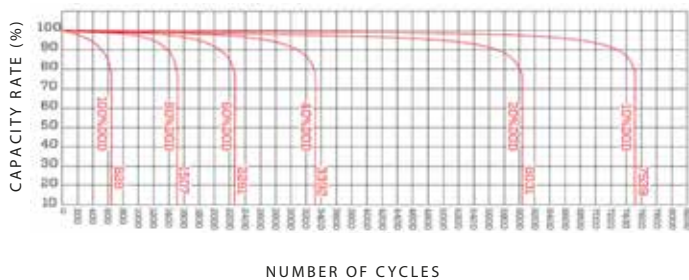


TEMPERATURE AND FLOAT SERVICE LIFE

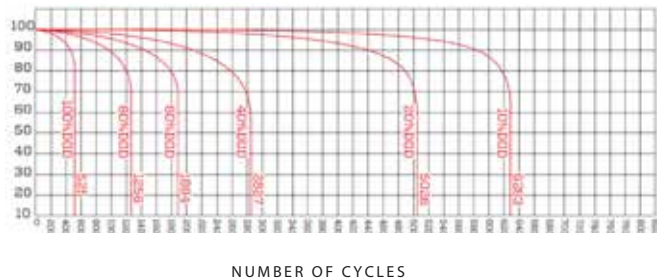


CYCLE LIFE CURVE GRAPH

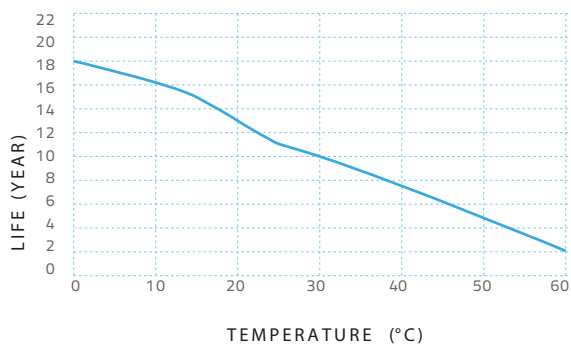
CYCLE LIFE CURVE GRAPH (25°C)



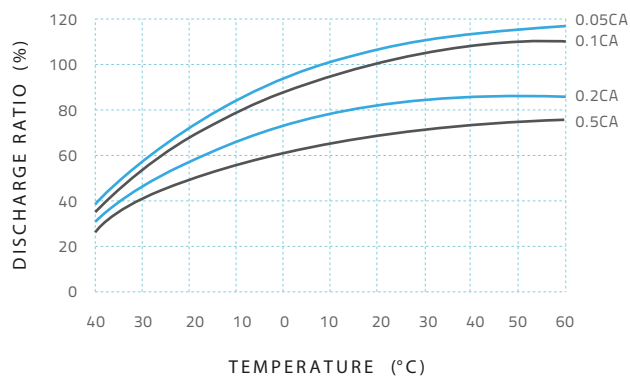
CYCLE LIFE CURVE GRAPH (40°C)



FLOAT SERVICE LIFE CURVE GRAPH



TEMPERATURE & DISCHARGE CAPACITY



3-EVFJ-210Ah

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).

