

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



POWERED BY

Betta Batteries

6- CNFJ-35RT 12V / 35 Ah

Ver. 1902-1

This battery **MUST** be charged and maintained in accordance with the datasheet & user manual. Charge currents **MUST** be according to the following, during boost phase - CNFJ & CNFT - 0.3C @ C10 rate (or 30% of the C10 rated Capacity) - Incorrect charging may void or reduce your warranty.

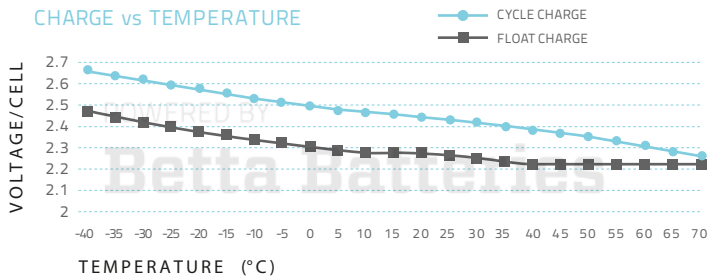
SPECIFICATION

Nominal Voltage		12V	
Rated Capacity (10 hour rate)		35 AH	
Dimension	Total Height (top of terminal)	170 mm	6.69 "
	Height	170 mm	6.69 "
	Length	194 mm	7.64 "
	Width	132 mm	5.20 "
Weight		Approximately 12 kg / 26,46 lbs	
Capacity 25°C	120 hour rate(0.35A)	42AH	
	20 hour rate(2A)	40AH	
	10 hour rate(3.5A)	35AH	
Internal Resistance	Fully charged Battery (25°C)	8mΩ	
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	350A(5S)		
Terminal	Standard	F3	
	Optional		
Charging this battery (Constant Voltage)	Cyclic Application	Initial Charging Current 10.5A 14.7V/ (25°C)	
	Float Application	13.6V/ (25°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



All Betta Batteries Lead Crystal Batteries cases are manufactured with UL94 V-2 rated ABS plastic. UL94 V-0 rated ABS cases are available via special order.

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)

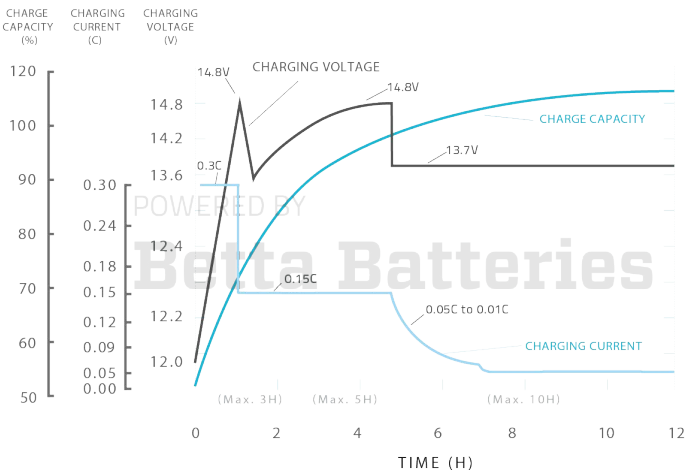
End Voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	128.44	67.97	41.07	29.94	24.12	13.82	10.03	7.87	6.71	5.71	4.35	3.62	3.04	1.98	1.62
1.67V	119.36	65.74	40.46	29.74	24.07	13.76	9.85	7.83	6.62	5.66	4.34	3.58	3.03	1.97	1.61
1.70V	118.15	64.74	40.05	29.33	23.87	13.64	9.79	7.79	6.51	5.60	4.33	3.58	3.02	1.97	1.61
1.75V	108.23	62.71	39.66	29.13	23.47	13.37	9.75	7.69	6.45	5.56	4.31	3.54	3.01	1.96	1.61
1.80V	97.10	58.66	38.03	28.32	22.86	13.17	9.71	7.67	6.37	5.50	4.29	3.50	2.99	1.89	1.60
1.83V	92.82	53.82	37.43	27.31	21.85	13.05	9.33	7.34	6.23	5.30	4.20	3.36	2.87	1.87	1.58
1.85V	86.98	52.19	35.00	26.30	21.24	12.52	9.08	7.24	6.07	5.13	4.15	3.32	2.83	1.85	1.57

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

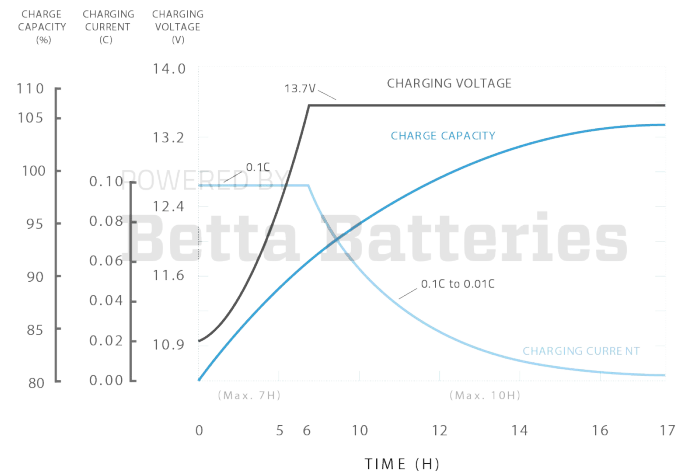
End Voltage per cell	5min	15min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	12h	20h	24h
1.60V	214.62	119.35	76.87	56.03	45.08	26.09	19.08	15.11	12.76	10.96	8.46	7.00	5.89	3.92	3.22
1.67V	204.31	117.53	73.76	55.63	45.11	26.09	18.83	15.09	12.76	10.94	8.46	6.98	5.89	3.92	3.22
1.70V	203.09	116.72	73.72	55.63	44.70	25.89	18.79	15.03	12.56	10.86	8.39	6.92	5.83	3.90	3.22
1.75V	189.13	115.30	73.81	55.63	44.50	25.69	18.75	15.01	12.52	10.78	8.35	6.87	5.83	3.90	3.20
1.80V	173.56	109.43	72.22	54.62	44.30	25.69	18.73	14.97	12.44	10.78	8.33	6.84	5.83	3.80	3.20
1.83V	167.49	100.53	71.61	53.00	42.48	25.49	18.21	14.46	12.30	10.44	8.33	6.63	5.72	3.76	3.18
1.85V	155.15	98.31	66.55	50.98	41.27	24.88	17.70	14.28	11.96	10.24	8.01	6.57	5.62	3.72	3.16

CYCLE CHARGE CHARACTERISTIC (25°C)

REGULAR CYCLE CHARGE CHARACTERISTICS - 77°F (25°C) 50% DOD (12V) @ C10

**FLOATING CHARGE CHARACTERISTIC (25°C)**

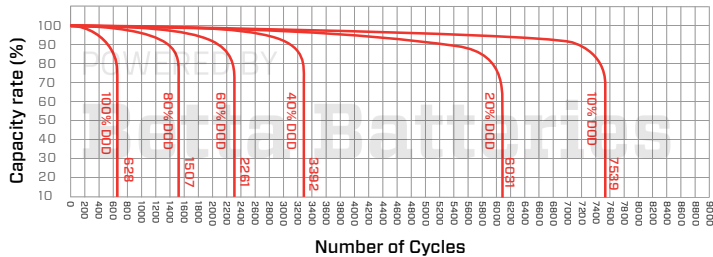
FLOATING CHARGE CHARACTERISTICS - 77°F (25°C) 80% DOD (12V) @ C10



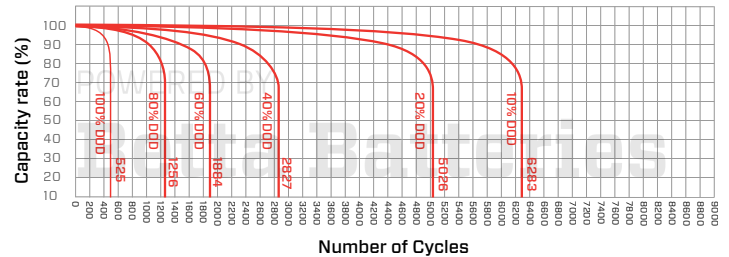
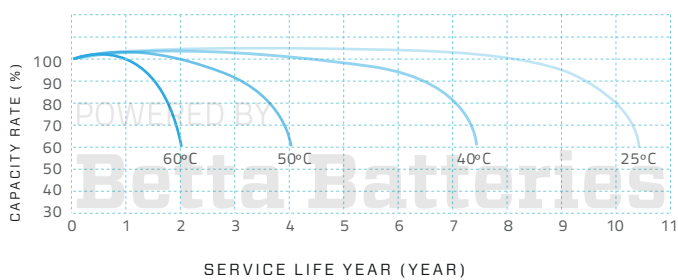
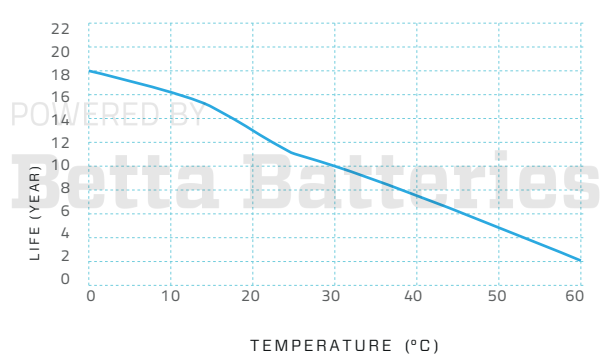
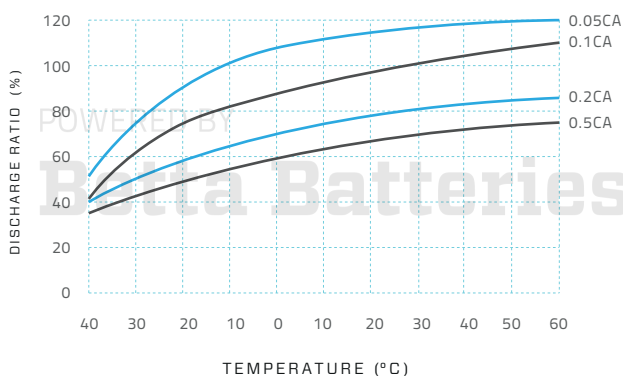
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CYCLE LIFE CURVE GRAPH

Cycle life curve graph (25°C) 12V



Cycle life curve graph (40°C) 12V

**TEMPERATURE & FLOAT SERVICE LIFE****Float Service Life Curve Graph****TEMPERATURE & DISCHARGE CAPACITY**

6- CNFJ-35RT 12V/ 35Ah

Ver. 1902-1

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