

LEAD CRYSTAL[®] BATTERIES

POWERED BY
Betta Batteries



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 31.5 kg / 69.44 lbs

Capacity 25°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 (25°C) 6mΩ

Self-Discharge 25°C	Capacity after 3 month storage	95%
	Capacity after 6 month storage	85%
	Capacity after 12 month storage	80%

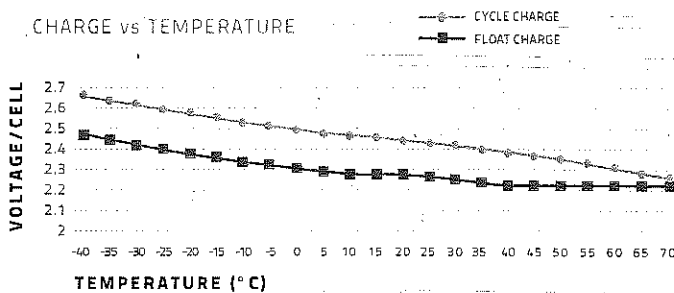
Max Discharge Current 25°C: 1000A (5S)

Terminal	Standard	F3
	Optional	
Charging (Constant Voltage)	Cycle	Initial Charging Current 30A 14.7V / (25°C)
	Float	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



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	2.29	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	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