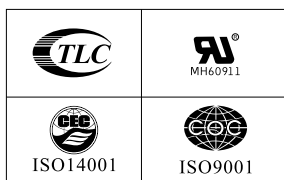


Castle Battery C12-250AH

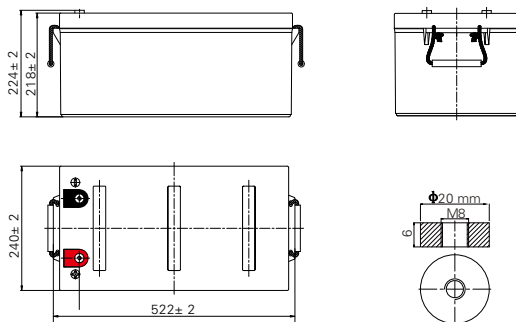


Application

For UPS, EPS, Telecom, IDC, banking, transportation and other back-up power.



Dimensions



Product Features

STK CASTLE series battery uses high magnification lead paste formulations and high corrosion resistant alloy multi-grid, and special exhaust structure and sealing technology. It has many excellent features like high discharge capacity, long life, safe and reliable, very low self-discharge rate, flexible installation, convenient maintenance etc.

Specifications

Nominal Voltage	12V	
Design Life	10 years	
Nominal Capacity(20HR)	250.0Ah	
Dimension	Length	522mm±2 (20.55 in.)
	Width	240mm±2 (9.45 in.)
	Container Height	218mm±2 (8.58 in.)
	Total Height (with Terminal)	224mm±2 (8.82 in.)
Approx Weight	63.5 Kg (139.99 lbs)	
Terminal	T11 (M8,Torque1.1-1.47Nm)	
Container Material	ABS	
Rated Capacity (25°C)	C20(1.2.5A,1.75V/cell)	250.0 Ah
	C10(23.0A,1.75V/cell)	230.0 Ah
	C5(40.8A,1.75V/cell)	204.0 Ah
	C3(61.3A,1.75V/cell)	183.9 Ah
	C1(146.3A,1.67V/cell)	134.6 Ah
Max. Discharge Current	2300A (5s)	
Internal Resistance	Approx 2.6mΩ	
Operating Temp. Range	Discharge	-20°C-55°C (-4°F-131°F)
	Charge	0°C-40°C (32°F-104°F)
	Storage	-15°C-50°C (5°F-122°F)
Nominal Operating Temp. Range	25°C±3°C (77°F±5°F)	
Standby Use (25°C)	Charging Current	≤690A
	Charging Voltage	13.5V
	Temp. Coefficient	-3mV/cell/°C
Capacity affected by Temperature	40°C (104°F)	106%
	25°C (77°F)	100%
	0°C (32°F)	86%
Monthly Self Discharge	≤3% per month at 25°C	

Constant Power Discharge (Watts/cell) at 25 °C (77°F)

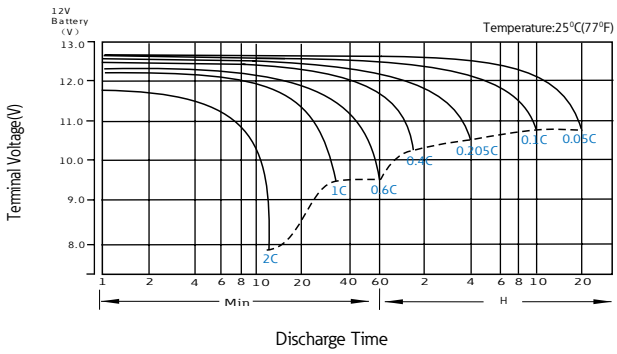
F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	856.8	645.4	538.0	456.4	354.3	270.6	234.0	177.6	143.1	108.1	86.7	72.8	63.5	50.3	42.0	23.3
1.80V/cell	983.7	751.9	619.1	520.8	397.2	300.4	257.3	193.2	155.0	116.5	93.1	78.2	67.9	53.7	44.8	24.5
1.75V/cell	1057.1	796.5	648.1	541.2	411.7	310.2	264.9	198.5	158.8	119.1	95.1	79.7	69.1	54.6	45.4	24.8
1.70V/cell	1126.2	838.3	677.2	563.9	425.9	319.4	272.7	204.0	163.1	122.0	97.2	81.3	70.5	55.5	46.0	25.1
1.67V/cell	1164.6	862.3	700.4	576.2	434.3	325.0	277.1	206.9	165.2	123.5	98.3	82.1	71.2	56.0	46.4	25.3
1.60V/cell	1251.3	914.0	730.7	603.9	453.0	338.1	287.9	214.3	170.8	127.3	101.0	84.3	72.9	57.1	47.2	25.7

Constant Current Discharge (Amperes) at 25 °C (77°F)

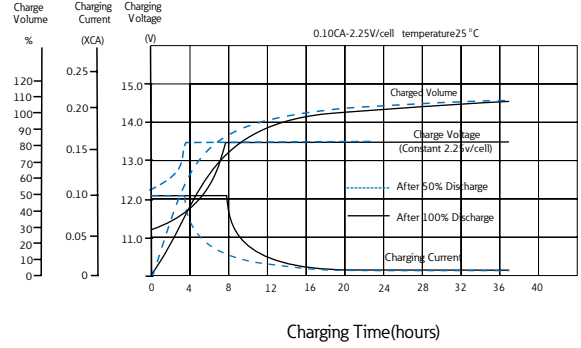
F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	451.0	337.2	280.0	236.9	183.3	139.6	120.4	91.1	73.2	55.1	44.1	37.0	32.2	25.5	21.2	11.7
1.80V/cell	525.7	397.6	325.6	272.9	207.3	156.1	133.3	99.7	79.7	59.7	47.6	39.8	34.5	27.3	22.6	12.3
1.75V/cell	573.6	426.3	344.5	286.4	216.6	162.4	138.2	103.0	82.1	61.3	48.8	40.8	35.3	27.8	23.0	12.5
1.70V/cell	621.3	454.7	364.1	301.4	226.2	168.6	143.3	106.5	84.8	63.0	50.0	41.7	36.0	28.2	23.4	12.7
1.67V/cell	648.6	471.3	375.5	309.9	231.9	172.4	146.3	108.4	86.2	64.0	50.7	42.2	36.4	28.5	23.6	12.8
1.60V/cell	715.0	510.0	402.5	330.0	245.0	181.3	153.4	113.3	89.8	66.3	52.4	43.5	37.5	29.2	24.1	13.0

Castle Battery C12-250AH Typical Curves

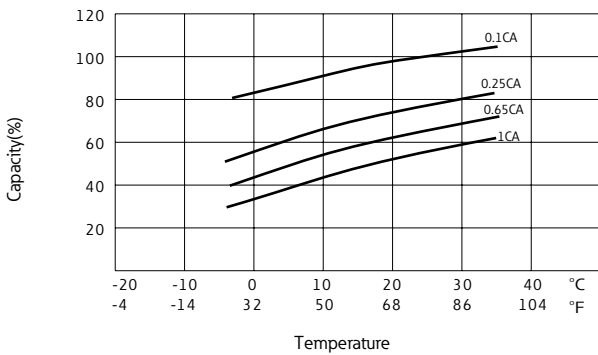
Discharge Characteristics



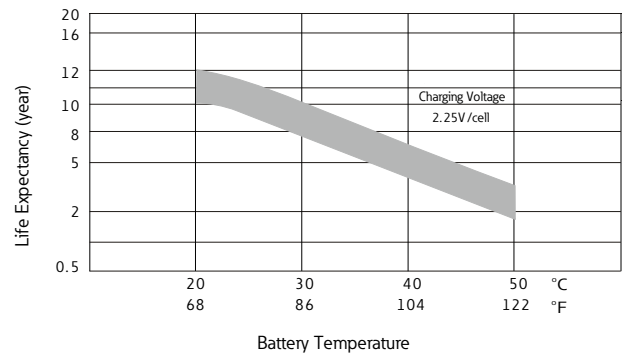
Float Charging Characteristics



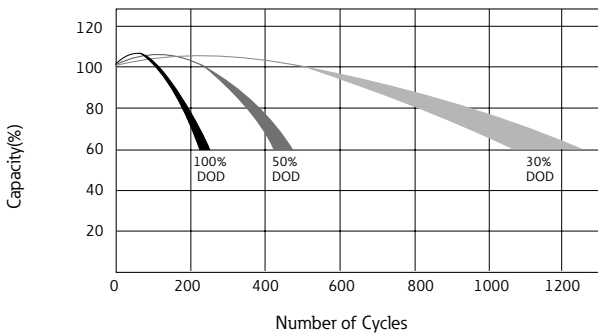
Temperature Effects in Relation to Battery Capacity



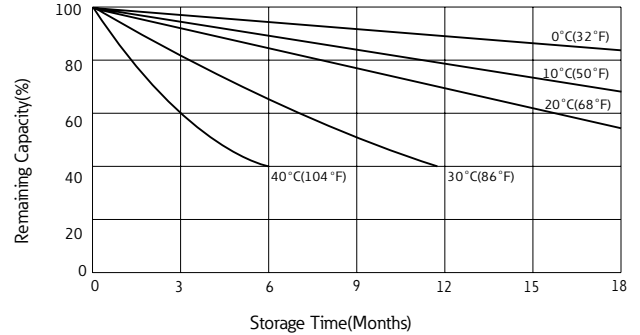
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics



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