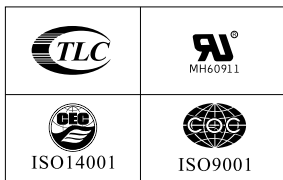


# Castle Battery C12-120AH



## Application

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



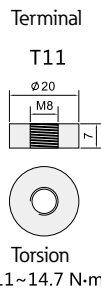
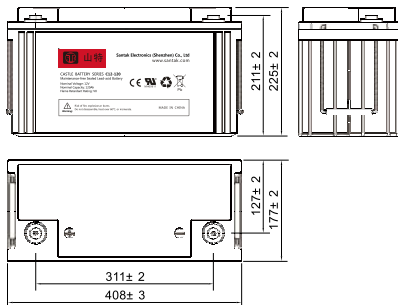
## Product Features

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.

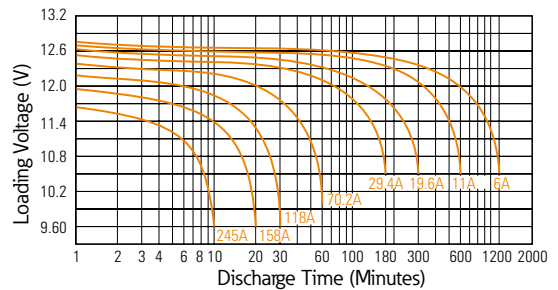
## Specifications

Nominal Voltage	12V
Design Life	10 years
Nominal Capacity	120Ah(20hr)
Dimension (L*W*H)	408*177*225mm
Approx Weight	32.5Kg
Internal Resistance	4.5mΩ
Operating Temperature Range	Charging: 0 to 40°C Discharging: -20 to 55°C Storage: -15 to 50°C
Capacity Affected by Temperature	103% $C_{20}$ @40°C 100% $C_{20}$ @25°C 85% $C_{20}$ @0°C
Float Charging Voltage	13.5 to 13.8V; Recom.13.7V
Cycle Use Charging Voltage	14.1 to 14.4V; Recom.14.1V
Float Charging Temp. Coefficient	-20mV/°C
Cycle Use Charging Temp. Coefficient	-30mV/°C
Max. Charging Current	30A
Max. Continuous Discharge Current	343A
Month Self Discharge	< 2% (20°C)
Terminal	T11 (Female M8)
Container Material	ABS (UL94-V0)
Design Life	10 years

## Dimensions



## Discharge Characteristics



## Constant Power Discharge (Watts/Cell@25°C)

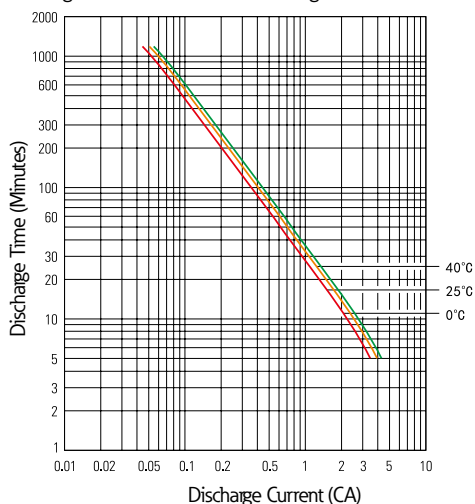
F.V.	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.80	472	361	297	250	191	144	123	92.7	74.4	55.9	44.7	37.5	32.6	25.8	21.5	11.8
1.75	507	382	311	260	198	149	127	95.3	76.2	57.2	45.7	38.3	33.2	26.2	21.8	11.9
1.70	541	402	325	271	204	153	131	97.9	78.3	58.6	46.6	39.0	33.8	26.6	22.1	12.1
1.67	559	414	336	277	208	156	133	99.3	79.3	59.3	47.2	39.4	34.2	26.9	22.3	12.1
1.60	601	439	351	290	217	162	138	103	82.0	61.1	48.5	40.5	35.0	27.4	22.7	12.3

## Constant Current Discharge (Ampere@25°C)

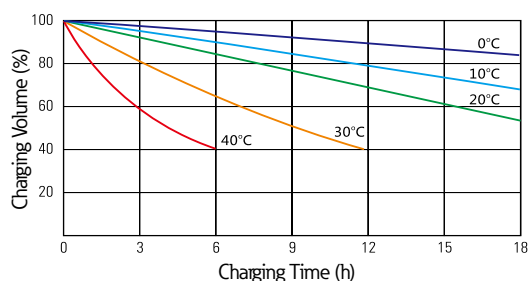
F.V.	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.80	252	191	156	131	100	75	64	48	38	28.6	22.8	19.1	16.6	13.1	10.9	5.9
1.75	275	205	165	138	104	78	66	50	39	29.4	23.4	19.6	16.9	13.3	11.0	6.0
1.70	298	218	175	145	109	81	69	51	41	30.3	24.0	20.0	17.3	13.6	11.2	6.1
1.67	311	226	180	149	111	83	70	52	41	30.7	24.3	20.3	17.5	13.7	11.3	6.1
1.60	343	245	193	158	118	87	74	54	43	32	25.1	20.9	18.0	14.0	11.6	6.2

# Castle Battery C12-120AH Typical Curves

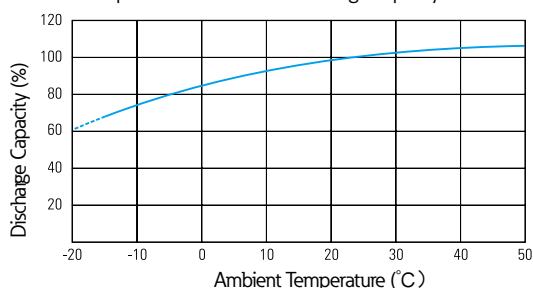
## Discharge Current in Relation to Discharge Time



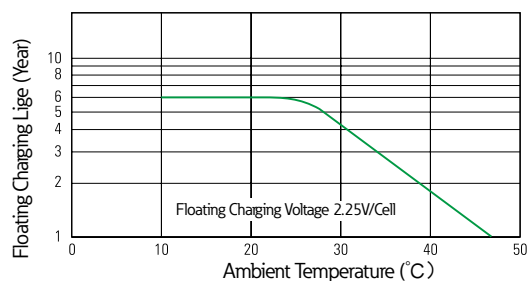
## Charging Characteristics



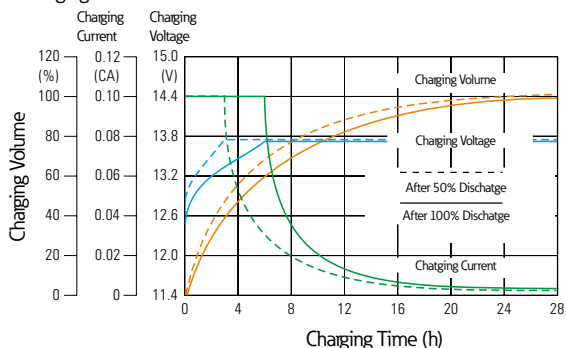
## Ambient Temperature in Relation to Discharge Capacity



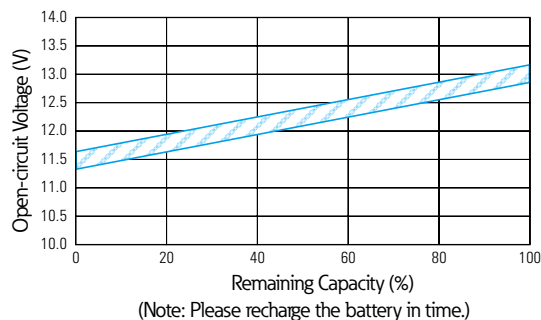
## Float Charging Life Characteristics



## Charging Characteristics



## Open-circuit Voltage in Relation to Remaining Capacity



\* Specifications are subject to change without prior notice.

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