

Solar Battery SX12-55 12V 55Ah



SX series designed for true-deep cycle solar applications, with features like thick, pure virgin lead plates (99.996%), heavy-duty over-the-partition welds, super-C additive and a proprietary gel formulation designed for years of cycling long service life. SX is well-suited to all deep-cycle off-grid solar power system, from commercial to personal, solar sites.

SX can provide the best and reliable service under extreme conditions such as high temperature and frequent power outages for Solar project .

SX is the highly reliable, safe, and maintenance-free option.

Long
Life

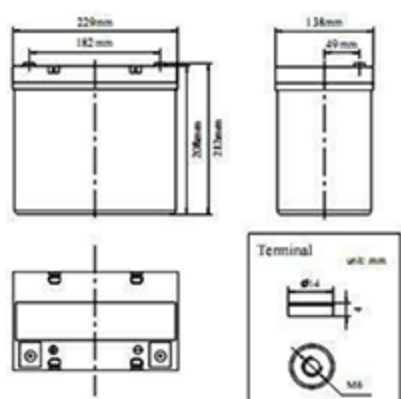
GEL
Technology

Deep
Cycle



Dimensions & Weight

Length (mm)	229±1
Width (mm)	138±1
Height (mm)	208±1
Total Height (mm)	212±1
Weight (kg)	15.8±3%



General Features

- Able to operate at 40-60°C
- DOD 50% 1500 times Cycles
- Integrated design to ensure the best Uniformity and reliability
- Long life and high stability under high temp. environment (no air-con needed)
- Use super-C additives: Deep discharge recovery capability

Technical Specifications

Nominal Voltage		12V(6 cells per unit)
Design Floating Life @25°C		12 Years
Nominal Capacity @25°C(10 hour rate@5.00A,10.8V)		50Ah
Capacity @25°C	20hour rate (2.78A,10.8V)	55.6Ah
	5 hour rate (9.1A,10.5V)	45.5Ah
	1 hour rate (33.3A,9.6V)	33.3Ah
Internal Resistance		Full Charged Battery@25°C
		≤8.4mΩ
Ambient Temperature	Discharge	-20°C~60°C
	Charge	-10°C~60°C
	Storage	-10°C~60°C
Max.Discharge Current@25°C		300A (5s)
Capacity affected by Temperature (10 hour)	40°C	105%
	25°C	100%
	0°C	85%
	-15°C	65%
Self-Discharge@25°C per Month		3%
Charge (Constant Voltage) @25°C	Standby Use	Initial Charging Current Less than 12.5A Voltage 13.6-13.8V
	Cycle Use	Initial Charging Current Less than 12.5A Voltage 14.4-14.9V



COMPLIED STANDARDS

IEC 60896-21/22 JIS C8704
IEC61427 BS6290 part4
GB/T 19638 CE/ISO

Battery Discharge Table

Discharge Constant Current per Cell (Amperes at 25° C)

F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	84.4	52.5	37.7	33.3	20.3	14.8	9.5	5.8	5.20	2.89
1.65V	80.9	51.1	36.7	32.4	19.9	14.6	9.4	5.8	5.15	2.86
1.70V	77.4	49.7	35.7	31.5	19.5	14.3	9.3	5.7	5.10	2.83
1.75V	73.9	48.3	34.7	30.6	19.1	13.9	9.1	5.7	5.05	2.80
1.80V	70.4	46.9	33.7	29.7	18.6	13.6	9.0	5.6	5.00	2.78

Discharge Constant Power per Cell (Watts at 25°C)

F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	157.4	98.0	70.3	62.0	37.8	27.6	17.8	10.9	9.7	5.4
1.65V	150.9	95.3	68.4	60.4	37.1	27.1	17.5	10.8	9.6	5.3
1.70V	144.3	92.7	66.5	58.7	36.4	26.6	17.3	10.7	9.5	5.3
1.75V	137.8	90.1	64.6	57.1	35.6	26.0	17.0	10.5	9.4	5.2
1.80V	131.2	87.5	62.8	55.4	34.7	25.4	16.8	10.4	9.3	5.2

Note: The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice. Contact **CSBattery** for the latest information.

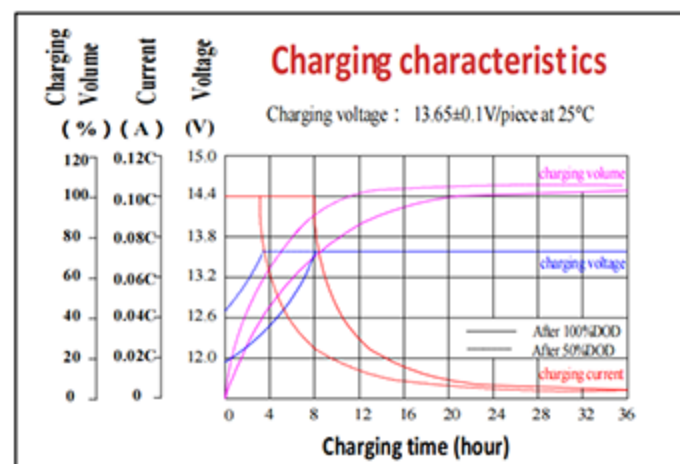
Durable Battery Choose CSBattery

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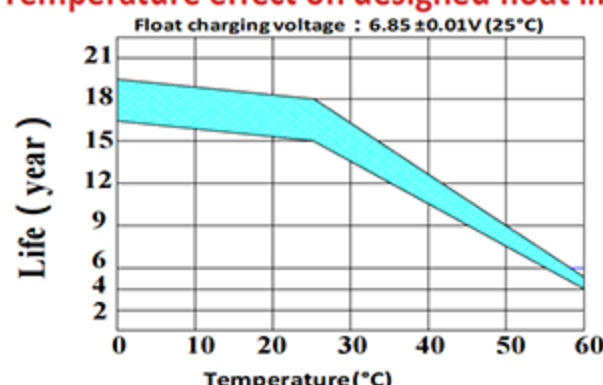
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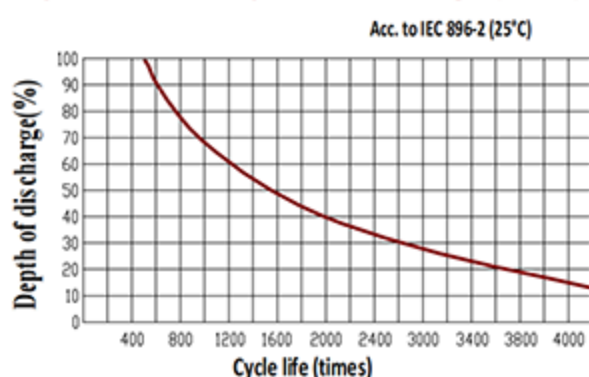
Performance Characteristics



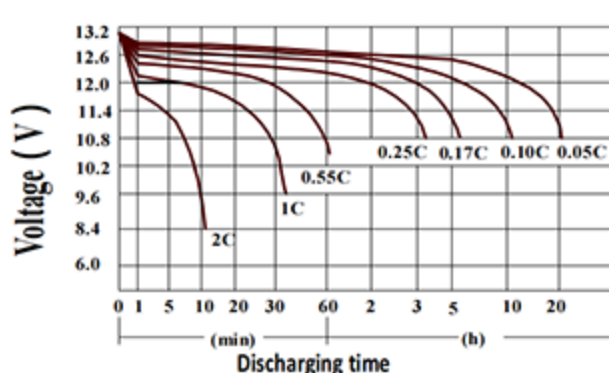
Temperature effect on designed float life



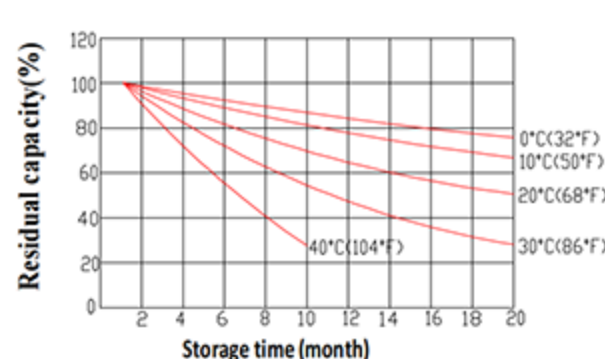
Cycle life vs. Depth of discharge (25°C)



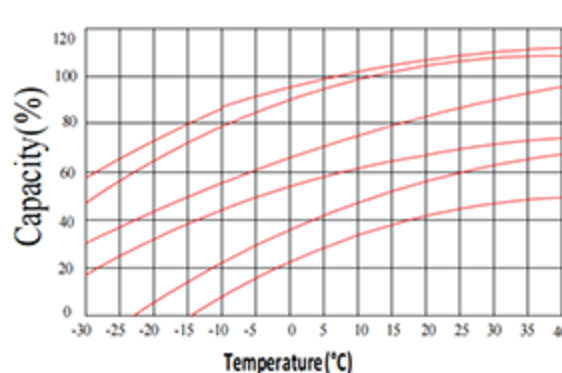
Discharge characteristics (25°C)



Temperature effect on battery self-discharge



Temperature effect on capacity



Battery Construction

Component	Positive plate	Negative plate	Container & Cover	Safety valve
Features	Thick high Sn low Ca grid with Special paste	Balanced Pb-Ca grid for improved recombination efficiency	Fire resistant e ABS (UL94-V0optional)	Flame Si-Rubber and aging resistance
Component	Terminal	Separator	Electrolyte	Pillar seal
Features	Female Copper Insert	Advanced PVC /AGM separator for high pressure cell design	German Evonik Silicon GEL	Two layers epoxy resin seal

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