ELECTROMAGNETIC COMPATIBILITY

Report No.: CTS20210151-E

中国认可
国际互认
检测
TESTING
CNAS L12944

EMC TEST REPORT

Product:	Energy Storage System
Model No.:	J1ESS-HB58-1
Applicant:	SolaX Power Network Technology (Zhejiang) Co. ,Ltd.
Manufacturer:	SolaX Power Network Technology (Zhejiang) Co. ,Ltd.
Issued by:	Shenzhen Chengxin Technology Service Co., Ltd.
Lab Location:	No. 13 North of Aiqun Road, Shiyan Street, Baoan District, Shenzhen, Guangdong, China.

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Test Report

Applicant……..……..:	SolaX Power Network Technology (Zhejiang) Co. ,Ltd.
Applicant Address……...:	No.288,Shizhu Road, Tonglu Economic Development Zone, Tonglu City, Zhejiang Province, 310000 P. R. CHINA
Manufacturer……..……:	SolaX Power Network Technology (Zhejiang) Co. ,Ltd.
Manufacturer Address……...:	No.288,Shizhu Road, Tonglu Economic Development Zone, Tonglu City, Zhejiang Province, 310000 P. R. CHINA
Factory……:	SolaX Power Network Technology (Zhejiang) Co. ,Ltd.
Factory Address……..…...:	No.288,Shizhu Road, Tonglu Economic Development Zone, Tonglu City, Zhejiang Province, 310000 P. R. CHINA
Brand Name…….....:	SolaX Power
Product……....:	Energy Storage System
Model No……..….:	J1ESS-HB58-1
Test Standards……..……:	IEC 61000-2-2:2002 IEC 61000-4-5:2014 +A1:2017
Test Result…….....……:	☒Positive ☐Negative
Tested by…….....……..:	Xiao Yun 2021.08.26 Signature Date
Reviewed by……..:	Jiang Haibiao 2021.08.26 Signature Date
Approved by……..:	Chen Weixiong 2021.08.26 Signature Date

The test results presented in this report relate only to the object tested.

Table of Contents

1 General Information

1.1 Description of EUT

Product: Energy Storage System
Model No.: J1ESS-HB58-1
Brand Name: /
Serial No.: /
Rating: 1) Solar power input (DC)
System Input Voltage: DC 50V / 450V
Input Current: 14A / one circuit
2) Storage battery input / output (DC) *internal
System Input Voltage: DC 216V - 252V
Charge Current: 12.5A Max
Discharge Current: 15A Max
3) Grid interconnection input / output (AC)
System Input Voltage: AC 202V
Frequency: 50/60Hz
Input Current:: 29.2A
Output Current: 14.9A
4) Independent output (AC)
Voltage: AC 101V / 202V
Frequency: 50/60Hz
Input Current: 14.9A
Accessories: /

NOTE:
For more detailed features description about the EUT, please refer to User's Manual.

2 Test Facilities and Configuration

2.1 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

- Temperature: 15-35 ℃
- Humidity: 30-60 %
- Atmospheric pressure: 86-106 kPa

2.2 Associated Equipment

Kind of equipment	Manufacturer	Model No.	Serial No.	Remarks
/	/	/	/	/

2.3 Operation Mode

The EUT continuously operated during the test under modes as below table:

No.	Operating modes	Remarks
1	Normal operation-PV-AC mode	/
2	Normal operation-Charging mode	/
3	/	/

2.4 Test Standards and Results

The EUT has been tested according to the following specifications:

IMMUNITY		
Basic Standard	**Test Type**	**Result**
IEC 61000-4-5:2014 +A1:2017	Surge immunity	PASS
IEC 61000-2-2:2002	Immunity to low-frequency signals	PASS

2.5 List of Equipment Used

Description	Manufacturer	Model No.	Serial No.	Cal. Due Date
EFT/Surge Test System	EM TEST	UCS500N7.2	TE18080036	2022.02.28
	EM TEST	CNI503B9.4/100A	TE18080037	2022.02.28
Power Supply	Chroma	61860	TE18080043	2022.08.16

NOTE: Equipment above has been calibrated and is in the period of validation.

3 Immunity Test

3.1 EUT Setup and Operating Conditions

The EUT was powered by 202Vac, 50Hz power supply, The EUT continuously operated during the test under 15A Power.

3.2 Performance Criteria

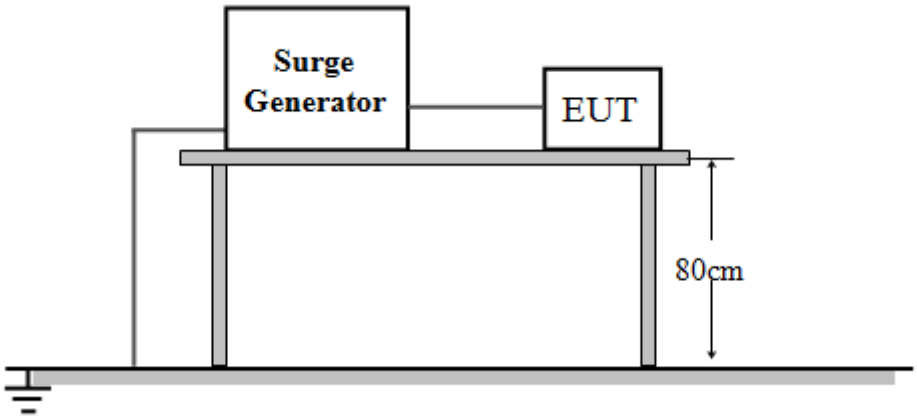
	Criterion A	Criterion B
External and internal indications and metering	Change only during test	Change only during test
Control signals to external devices	No change	Change only temporarily in consistency with the actual UPS mode of operation
Mode of operation	No change	Change only temporarily

3.3 Surge Immunity Test

3.3.1 Test Specification

Waveform:	Voltage 1.2/50 μs; Current 8/20 μs
Test Voltage:	AC power port, line to line: 0.5kV, 1kV line to earth: 0.5kV, 1kV, 2kV DC power port, line to line: 0.5kV, 1kV line to earth: 0.5kV, 1kV, 2kV
Polarity:	Positive/Negative
Phase Angle:	0 °, 90 °, 180 °, 270 °
Repetition Rate:	60sec
Times:	5 time/each condition.
Criterion:	B

3.3.2 Test Setup



For the actual test configuration, please refer to Appendix II: Photographs of the Test Configuration.

3.3.3 Test Result

Environment Condition:
Temperature: 25~26°C; Relative Humidity: 54~56%; Pressure: Normal atmosphere
Test Date: 2021.08.17-2021.08.18
Test Engineer: Xiao Yun
Test mode: mode 1, mode 2
Test Site: Shielded room

Coupling Line	Test mode	Polarity	Voltage (kV)	Observation	Comply with Criterion
AC input port, Line-Line	mode 1	+/-	0.5, 1	Note (1)	A
AC input port, Line-Earth	mode 1	+/-	0.5, 1, 2	Note (1)	A
AC input port, Line-Line	mode 2	+/-	0.5, 1	Note (1)	A
AC input port, Line-Earth	mode 2	+/-	0.5, 1, 2	Note (1)	A
DC input port, Line-Line	mode 1	+/-	0.5, 1	Note (1)	A
DC input port, Line-Earth	mode 1	+/-	0.5, 1, 2	Note (1)	A

NOTE:

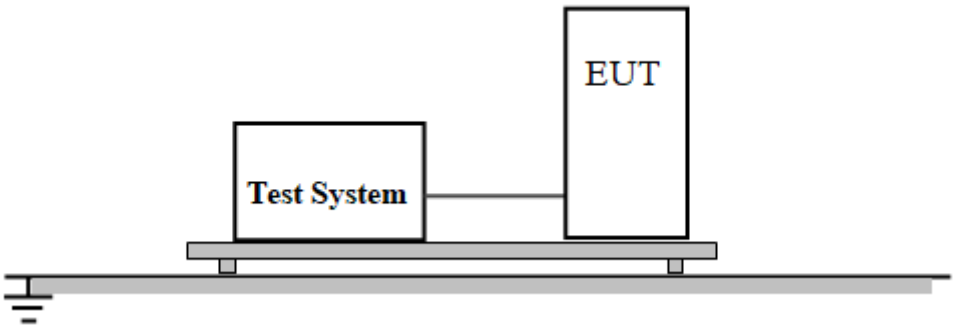
(1). The EUT continued to operate as intended. No degradation of performance was observed.

3.4 Immunity to low-frequency signals

3.4.1 Test Specification

Basic Standard:	IEC 61000-2-2
Disturbing Voltage:	10V
Frequency:	140 Hz to 360 Hz
Criterion:	A

3.4.2 Test Setup



For the actual test configuration, please refer to Appendix II: Photographs of the Test Configuration.

3.4.3 Test Result

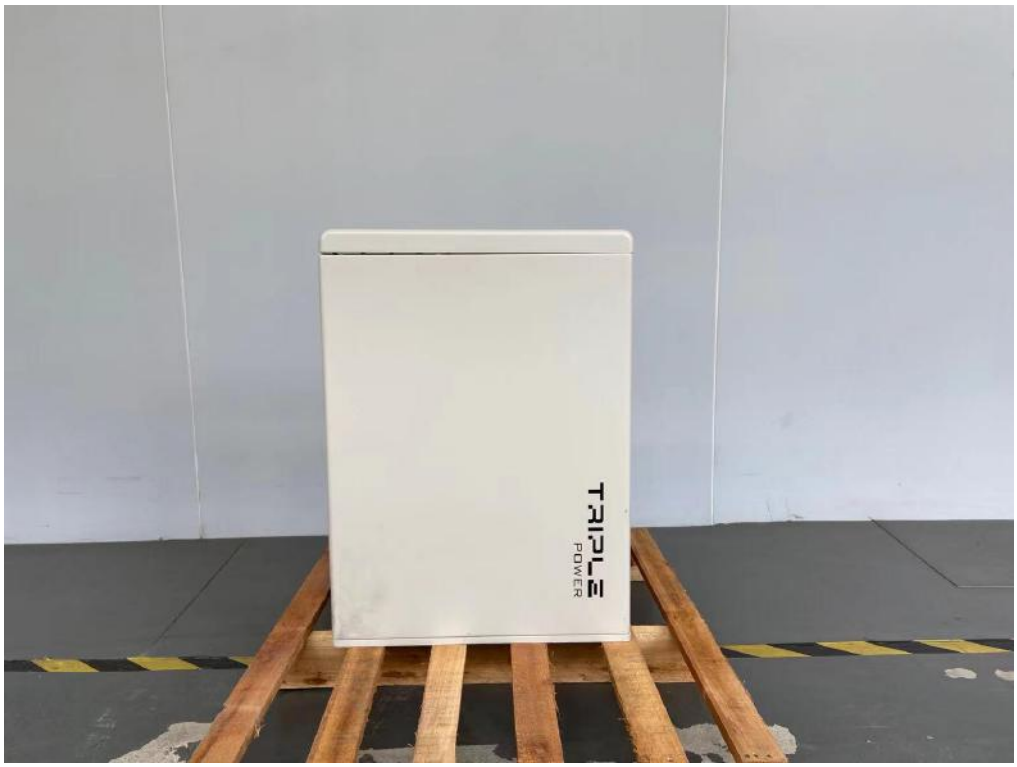
Environment Condition:
Temperature: 25°C; Relative Humidity: 54%; Pressure: Normal atmosphere
Test Date: 2021.08.13
Test Engineer: Xiao Yun
Test mode: mode 1
Test Site: Shielded room

Coupling Line	Reference document and level	Operating time (min.)	Observation	Comply with Criterion
AC input port	IEC 61000-2-2 10V	10	Note (1)	A

Note:
(1). The EUT continued to operate as intended after test. Loss of function was observed.
(2). The EUT continued to operate as intended after test. Temporary loss of function was observed during test.

Appendix I: Photographs of the EUT


TRIPLE
POWER


TRIPLE
POWER

Appendix II: Photographs of EMC Test Configuration

1. Surge Immunity Test (DC port)

2. Surge Immunity Test (AC input port)

3. Immunity to low-frequency signals

STATEMENT

1. The test report is invalid without stamp of laboratory.
2. The test report is invalid without signature of person(s) testing and authorizing.
3. The test report is invalid if erased and corrected.
4. Test results of the report are valid to the test samples if sampling by client.
5. “▷” item to be outside the scope of authorized by CNAS.
6. The test report shall not be reproduced except in full, without written approval of the laboratory.
7. If there is any objection to report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

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