

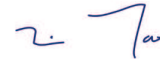


Prüfbericht-Nr.: <i>Test Report No.:</i>	50186952 001	Auftrags-Nr.: <i>Order No.:</i>	164143376	Seite 1 von 30 Page 1 of 30
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	632179	Auftragsdatum: <i>Order date.:</i>	29 Sep. 2018	
Auftraggeber: <i>Client:</i>	EAST Group Co., Ltd. No.6 Northern Industry Road, Songshan Lake Sci.& Tech. industrial zone, Dongguan City, Guangdong province, P. R. China			
Prüfgegenstand: <i>Test item:</i>	PV Inverter			
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	EA2KSI, EA2.5KSI, EA3KSI, EA3KSI-D, EA3.68KSI, EA4KSI, EA4.6KSI, EA5KSI, EA6KSI			
Auftrags-Inhalt: <i>Order content:</i>	TUV Rheinland - EMC service			
Prüfgrundlage: <i>Test specification:</i>	EN 61000-6-1:2007 EN 61000-6-2:2005 EN 61000-6-3:2007+A1 EN 61000-6-4:2007+A1			
Wareneingangsdatum: <i>Date of receipt:</i>	11 October 2018			
Prüfmuster-Nr.: <i>Test sample No.:</i>	BL-SZ18A0051#1, BL-SZ18A0051#2			
Prüfzeitraum: <i>Testing period:</i>	Refer to test report			
Ort der Prüfung: <i>Place of testing:</i>	Refer to section 2.1			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			



geprüft von / tested by:	kontrolliert von / reviewed by:												
 10.01.2019 Allen Xiao Senior Project Engineer	 10.01.2019 Felix Tao Technical Certifier												
<table border="0" style="width:100%;"> <tr> <td>Datum</td> <td>Name/Stellung</td> <td>Unterschrift</td> </tr> <tr> <td><i>Date</i></td> <td><i>Name/Position</i></td> <td><i>Signature</i></td> </tr> </table>	Datum	Name/Stellung	Unterschrift	<i>Date</i>	<i>Name/Position</i>	<i>Signature</i>	<table border="0" style="width:100%;"> <tr> <td>Datum</td> <td>Name/Stellung</td> <td>Unterschrift</td> </tr> <tr> <td><i>Date</i></td> <td><i>Name/Position</i></td> <td><i>Signature</i></td> </tr> </table>	Datum	Name/Stellung	Unterschrift	<i>Date</i>	<i>Name/Position</i>	<i>Signature</i>
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Datum	Name/Stellung	Unterschrift											
<i>Date</i>	<i>Name/Position</i>	<i>Signature</i>											

Sonstiges / Other:

Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specifications(s) F(ail) = failed a.m. test specifications(s) N/A = not applicable N/T = not tested	

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.

This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.

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TEST SUMMARY

5.1.1 HARMONICS ON AC MAINS

RESULT: *Pass*

5.1.2 VOLTAGE FLUCTUATIONS ON AC MAINS

RESULT: *Pass*

5.1.3 AC MAINS TERMINAL CONTINUOUS DISTURBANCE VOLTAGE

RESULT: *Pass*

5.2.1 RADIATED EMISSION

RESULT: *Pass*

6.2.1 RADIO-FREQUENCY ELECTROMAGNETIC FIELD AMPLITUDE MODULATED (RS)

RESULT: *Pass*

6.2.2 RADIO-FREQUENCY CONTINUOUS CONDUCTED (CS)

RESULT: *Pass*

6.2.3 POWER-FREQUENCY MAGNETIC FIELDS

RESULT: *Pass*

6.3.1 FAST TRANSIENTS (EFT)

RESULT: *Pass*

6.3.2 SURGE

RESULT: *Pass*

6.3.3 ELECTROSTATIC DISCHARGES (ESD)

RESULT: *Pass*

6.4.1 VOLTAGE DIPS AND INTERRUPTIONS

RESULT: *Not Applicable*

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1. General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix 1: Test result

Appendix 2: Measurement uncertainties

2. Test Sites

2.1 Test Facilities

Shenzhen BALUN Technology Co., Ltd.
Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road,
Nanshan District, Shenzhen, Guangdong Province, P. R. China

The tests at the test site have been conducted under the supervision of a TÜV engineer.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Kind of Equipment	Manufacturer	Type	S/N	Calibrated until
Conducted Emission (BALUN)				
EMI Receiver	ROHDE&SC HWARZ	ESRP	101036	2019.06.12
LISN	SCHWARZB ECK	NNLK 8129	8129-462	2019.06.12
Radiated Emission (BALUN)				
EMI Receiver	ROHDE&SC HWARZ	ESRP	101036	2019.06.12
Test Antenna- Bi-Log	SCHWARZB ECK	VULB 9163	9163-977	2019.07.21
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60*7.3 5m	N/A	2020.07.19
Harmonics & Flicker (BALUN)				
Harmonics, Flicker & Power Analyser	LAPLACE INSTRUMEN TS	AC2000A	377954	2019.11.06
Harmonics, Flicker Coupling Network	HTEC	FI-75A	172101	2019.03.19
Power Analyzer	HIOKI	PW6001	150901722	2019.03.19
Power Quality Analyzer	FULKE	435II	37143115	2019.03.19
ESD (BALUN)				
ESD Test System	SCHLODER	SESD 30000	206253	2019.06.20
Radio-Frequency Electromagnetic Field Amplitude Modulated (BALUN)				
Anechoic Chamber	RAINFORD	9m*6m*6m	N/A	2019.02.20
Signal Generator	ROHDE&SC HWARZ	SMB100A	177746	2019.06.10
Power Amplifier	OPHIR RF	5225F	1037	N/A
Power Amplifier	OPHIR RF	5273F	1016	N/A
Power Amplifier	Rflight	NTWPAS- 2560025	17043109	2019.11.14
Power Meter	Agilent	E4419B	GB40201833	2019.11.14
Directional Coupler	Werlantone	C5982-10	109275	N/A
Directional Coupler	Werlantone	CHP-273E	S00801z-01	N/A
Feld Strength Meter	Narda	EP601	511WX51129	2019.06.18
Test Antenna- Bi-Log	SCHWARZB ECK	VULB 9163	9163-624	2019.07.21
Test Antenna- Horn	SCHWARZB ECK	BBHA 9120D	9120D-1148	2019.07.10
EFT (BALUN)				
EFT Test System	HTEC	HEFT 51	1331011	2019.06.12

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Kind of Equipment	Manufacturer	Type	S/N	Calibrated until
EFT coupling network	HTEC	ECDN 51	150601	2019.06.12
Surge (BALUN)				
SURGE Generator	HTEC	HCWG 70	151601	2019.06.12
SURGE Coupling Network	HTEC	SCDN303P7	151602	2019.06.12
Radio-Frequency Continuous Conducted (BALUN)				
Conducted Disturbances Test System	Schloder GmbH	CDG 6000	126B1286	2019.06.12
CDN-M2+3	Schloder GmbH	CDN M2+M3-16	A2210276	2019.06.12
Power Frequency Magnetic Fields (BALUN)				
Magnetic Field Tester	HEAFELY	MAG100.1	083669-10	2019.06.12

3. General Product Information

3.1 Product Function and Intended Use

The EUTs are PV Inverter used for industrial, residential, commercial and light-industrial environments.

Model list:

MODEL	INPUT	OUTPUT		
		Voltage	Current	Power
EA2KSI	DC 90-550V, 11A Max.	230Vac	8.7A Max.	2000W
EA2.5KSI	DC 90-550V, 11A Max.	230Vac	10.9A Max.	2500W
EA3KSI	DC 90-550V, 11A Max.	230Vac	13.0A Max.	3000W
EA3KSI-D	DC 90-550V, 11A*2 Max.	230Vac	13.0A Max.	3000W
EA3.68KSI	DC 90-550V, 11A*2 Max.	230Vac	16.0A Max.	3680W
EA4KSI	DC 90-550V, 11A*2 Max.	230Vac	17.4A Max.	4000W
EA4.6KSI	DC 90-550V, 11A*2 Max.	230Vac	20.0A Max.	4600W
EA5KSI	DC 90-550V, 11A*2 Max.	230Vac	21.8A Max.	5000W
EA6KSI	DC 90-550V, 11A*2 Max.	230Vac	26.1A Max.	6000W

Models EA2KSI, EA2.5KSI and EA3KSI are identical except the type designation and power. The hardware configuration of EA3KSI-D, EA3.68KSI, EA4KSI, EA4.6KSI, EA5KSI and EA6KSI is consistent, only the software control output power is different. An internal spoiler fan is installed inside for EA6KSI.

For details please refer to the Circuit Diagram & Instruction Manual.

3.2 Ratings and System Details

MPPT voltage range:	DC 90-550V
Max. input voltage:	DC 600V
Input current:	refer to section 3.1
Output voltage:	AC 230V
Frequency:	50/60Hz
Output current:	refer to section 3.1
Output power:	refer to section 3.1
Earthing:	Connected

3.3 Independent Operation Modes

The basic operation modes are:

- A. On
- B. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.5 Submitted Documents

- Circuit Diagram
- Instruction Manual
- Rating Label

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure their highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

Immunity: The equipment under test (EUT) was configured to have their highest possible susceptibility against the tested phenomena. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5 & 6.
Pre-test in all operation modes, and find out the worst case for compliance test.
According to section 3.1, full tests were applied on models EA3KSI and EA6KSI.

4.3 Special Accessories and Auxiliary Equipment

The EUT was tested together with the following accessories:

Item	Manufacturer	Model	S/N
Solar IV Simulator	Kewell	IVS-60KW	602006150100159
DC Power Supply	Chroma	62150H-1000S	62150H-1000S

4.4 Countermeasures to achieve EMC Compliance

The test samples, which have been tested, contained the noise suppression parts as described in the Constructional Data Form or the Technical Construction File. No additional measures were employed to achieve compliance.

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5. Test Results EMISSION

5.1 Emission in the Frequency Range up to 30 MHz

5.1.1 Harmonics on AC Mains

RESULT:

Pass

Date of testing : 2018-11-01 to 2018-11-05
Test standard : EN 61000-6-3:2007+A1
Test procedure : IEC 61000-3-2:2014 (for EA3KSI)
IEC 61000-3-12:2011 (for EA6KSI)
Class : A
Limit : Table 1 of IEC 61000-3-2:2014
Table 2 of IEC 61000-3-12:2011
Measured harmonics : 2 – 40
Tested port : AC Mains

Test setup

Input Voltage : AC 230V±2%, 50Hz
Operation Condition : According to Annex C of IEC 61000-3-2:2014
According to Annex A of IEC 61000-3-12:2011
Operation mode : A
Earthing : Connected

Refer to attached Appendix 1.

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5.1.2 Voltage Fluctuations on AC Mains

RESULT:

Pass

Date of testing	:	2018-11-01 to 2018-11-05
Test standard	:	EN 61000-6-3:2007+A1
Basic standard	:	IEC 61000-3-3:2013 (for EA3KSI) IEC 61000-3-11:2000 (for EA6KSI)
Limit	:	Clause 5 of IEC 61000-3-3:2013 Clause 5 of IEC 61000-3-11:2000
Tested port	:	AC Mains

Test setup

Input Voltage	:	AC 230V±2%, 50Hz
Operation Condition	:	According to Clause 6 of IEC 61000-3-3:2013 According to Clause 6 of IEC 61000-3-11:2000
Operation mode	:	A
Earthing	:	Connected

Refer to attached Appendix 1.

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5.2 Emission in the Frequency Range above 30 MHz

5.2.1 Radiated Emission

RESULT:

Pass

Date of testing : 2018-10-16
Test standard : EN 61000-6-3:2007+A1 & EN 61000-6-4:2007+A1
Frequency range : 30 - 1000MHz *
Limits : Table 1 of EN 61000-6-3:2007+A1
Table 1 of EN 61000-6-4:2007+A1
Kind of test site : 10m Semi-Anechoic Chamber
Tested Port : Enclosure

Test setup

Input Voltage : DC 90-550V
Operation Condition : Clause 4 of EN 61000-6-3:2007+A1
Clause 4 of EN 61000-6-4:2007+A1
Operation mode : A
Earthing : Connected

* The highest frequency generated or used in the EUT is below 108MHz, hence the upper frequency of this test is 1GHz.

Refer to attached Appendix 1.
(The minimum margin is 2.16dB)

6. Test Results IMMUNITY

6.1 Classification of apparatus

According to EN 61000-6-1:2007 & EN 61000-6-2:2005, the EUTs shall be tested in accordance with table 1, 3 & 4, and comply with following performance criterion:

Continuous Disturbance

Power-Frequency Magnetic Fields	Criterion A
Radio-Frequency Electromagnetic Field Amplitude Modulated (RS)	Criterion A
Radio-Frequency Continuous Conducted (CS)	Criterion A

Transient Disturbance

Fast Transients (EFT)	Criterion B
Surge	Criterion B
Electrostatic Discharges (ESD)	Criterion B

Power Supply Alterations

Voltage Dips and Interruptions	Criterion B & C
--------------------------------	----------------------------

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6.2 Continuous Disturbances

6.2.1 Radio-Frequency Electromagnetic Field Amplitude Modulated (RS)

RESULT:

Pass

Date of Testing	:	2018-12-19
Test Specification	:	EN 61000-6-1:2007 & EN 61000-6-2:2005
Basic Standard	:	IEC 61000-4-3:2006+A1+A2
Criterion	:	A
Frequency Range	:	80 - 2,700MHz
Test Level	:	10V/m, 80 – 1000MHz 3V/m, 1.4 – 2.0GHz 1V/m, 2.0 – 2.7GHz (Unmodulated, r.m.s.)
Modulation	:	AM 80%, 1kHz sine-wave
Tested Port	:	Enclosure

Test setup

Input Voltage	:	DC 90-550V
Operation Mode	:	A
Earthing	:	Connected
Ambient temperature	:	See Appendix 1
Relative humidity	:	See Appendix 1
Atmospheric pressure	:	See Appendix 1

Refer to attached Appendix 1.

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6.2.2 Radio-Frequency Continuous Conducted (CS)

RESULT:

Pass

Date of testing	:	2018-12-19
Test Specification	:	EN 61000-6-1:2007 & EN 61000-6-2:2005
Basic Standard	:	IEC 61000-4-6:2008
Criterion	:	A
Frequency range	:	0.15 - 80 MHz
Source impedance	:	150Ω
Test level	:	10V (unmodulated, r.m.s.)
Modulation	:	AM 80%, 1kHz sine-wave
Sweep mode	:	automatic
Sweep rate	:	<1.5×10 ⁻³ decade/sec.
Tested Port	:	AC Output, DC Input

Test setup

Input Voltage	:	DC 90-550V
Operation Mode	:	A
Earthing	:	Connected
Ambient temperature	:	See Appendix 1
Relative humidity	:	See Appendix 1
Atmospheric pressure	:	See Appendix 1

Refer to attached Appendix 1.

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6.2.3 Power-frequency Magnetic Fields

RESULT:

Pass

Date of testing : 2018-12-19
Test Specification : EN 61000-6-1:2007 & EN 61000-6-2:2005
Basic Standard : IEC 61000-4-8:2009
Criterion : A
Test Frequency : 50/60Hz
Test level : 30A/m
Tested Port : Enclosure

Test setup

Input Voltage : DC 90-550V
Operation Mode : A
Earthing : Connected
Ambient temperature : See Appendix 1
Relative humidity : See Appendix 1
Atmospheric pressure : See Appendix 1

Refer to attached Appendix 1.

6.3 Transient Disturbances

6.3.1 Fast Transients (EFT)

RESULT:

Pass

Date of testing	:	2018-12-19
Test Specification	:	EN 61000-6-1:2007 & EN 61000-6-2:2005
Basic Standard	:	IEC 61000-4-4:2004
Criterion	:	B
Test level	:	±0.5kV, ±1kV, ±2kV
Test duration	:	≥60sec
Rise time	:	5/50ns
Repetition frequency	:	5kHz
Tested Port	:	AC Output, DC Input

Test setup

Input Voltage	:	DC 90-550V
Operation Mode	:	A
Earthing	:	Connected
Ambient temperature	:	See Appendix 1
Relative humidity	:	See Appendix 1
Atmospheric pressure	:	See Appendix 1

Refer to attached Appendix 1.

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6.3.2 Surge

RESULT:

Pass

Date of testing	:	2018-10-23
Test Specification	:	EN 61000-6-1:2007 & EN 61000-6-2:2005
Basic Standard	:	IEC 61000-4-5:2005
Criterion	:	B
Source impedance	:	2 Ω , 12 Ω
Test level	:	$\pm 0.5\text{kV}$, $\pm 1\text{kV}$, $\pm 2\text{kV}$
Number of surges	:	5 (for each combination of parameters)
Repetition rate	:	Max. 1/min
Tested Port	:	AC Output, DC Input

Test Setup

Input Voltage	:	DC 90-550V
Operation Mode	:	A
Earthing	:	Connected
Ambient temperature	:	See Appendix 1
Relative humidity	:	See Appendix 1
Atmospheric pressure	:	See Appendix 1

Refer to attached Appendix 1.

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6.4 Power Supply Alterations

6.4.1 Voltage Dips and Interruptions

RESULT:

Not Applicable

The EUT does not have AC input port, therefore the Voltage Dips and Interruptions test is not applicable.

7. Photographs of the Test Set-Up

Photograph 1: Set-up for Harmonics



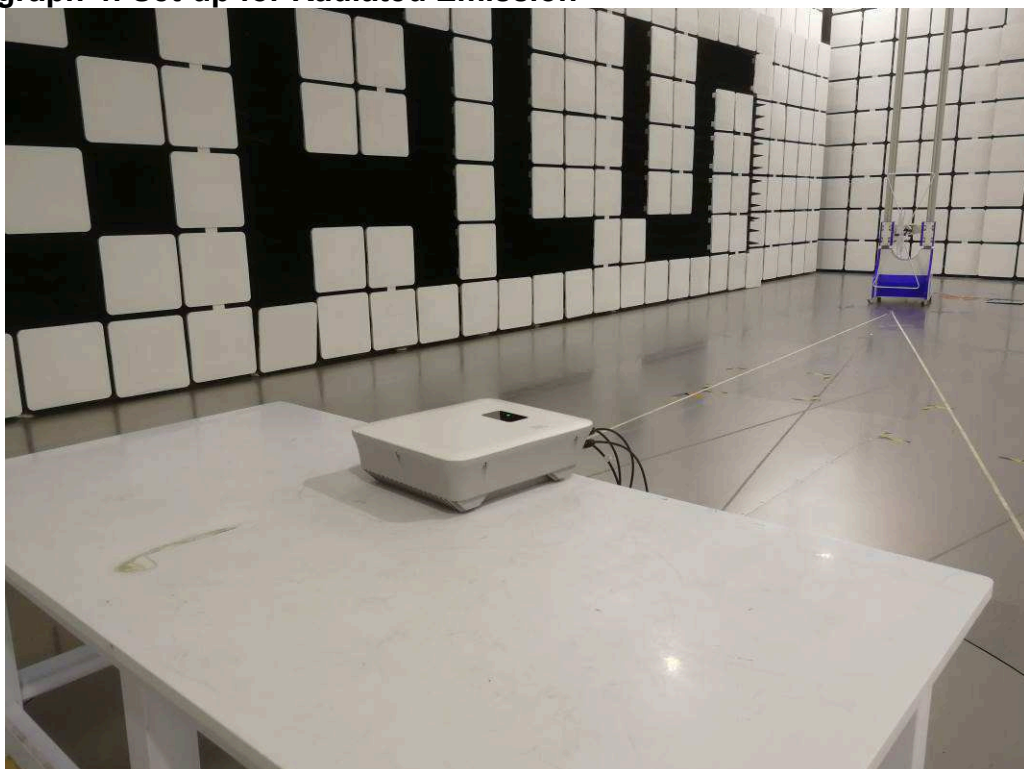
Photograph 2: Set-up for Voltage Fluctuations



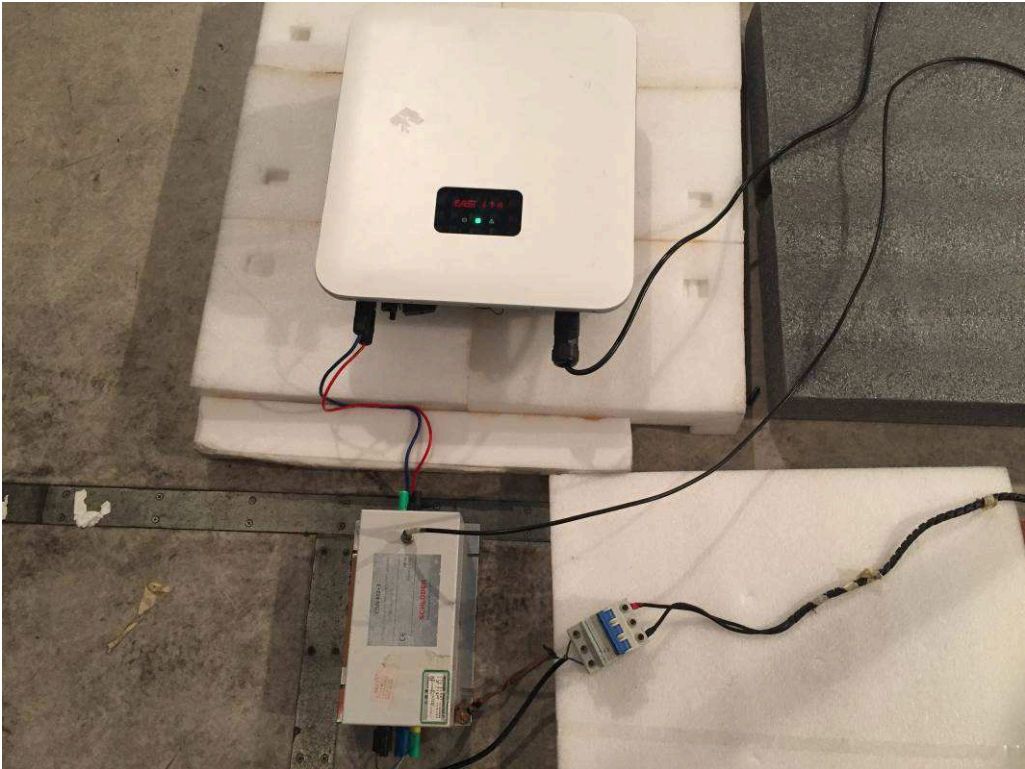
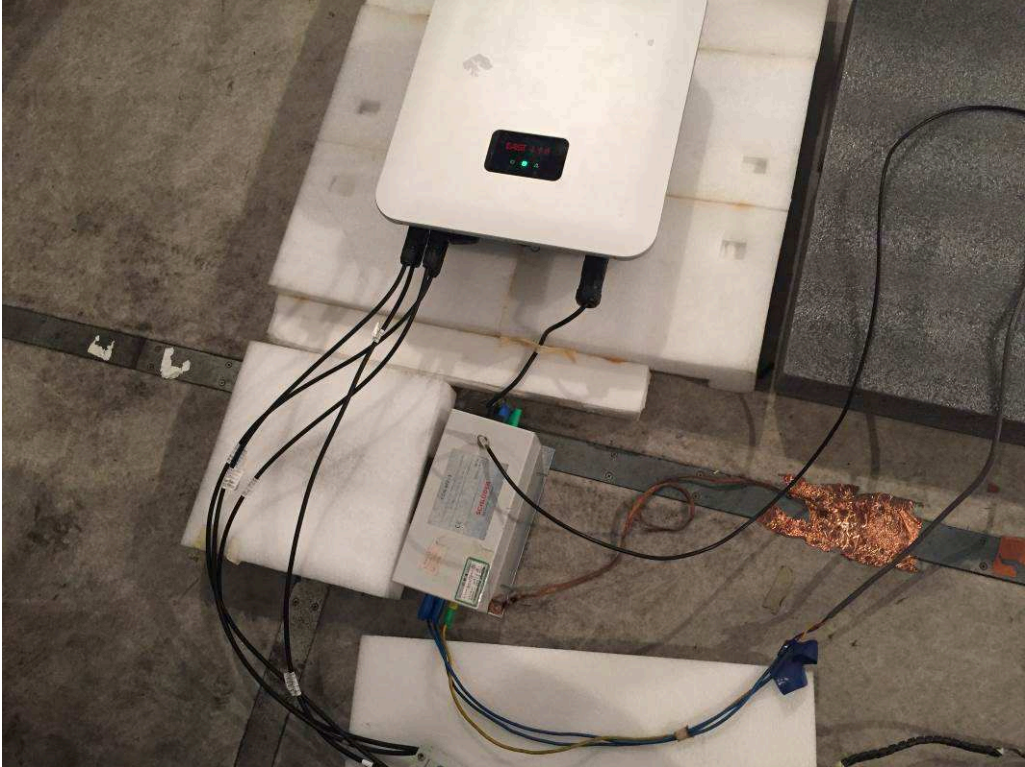
Photograph 3: Set-up for Conducted Emission



Photograph 4: Set-up for Radiated Emission



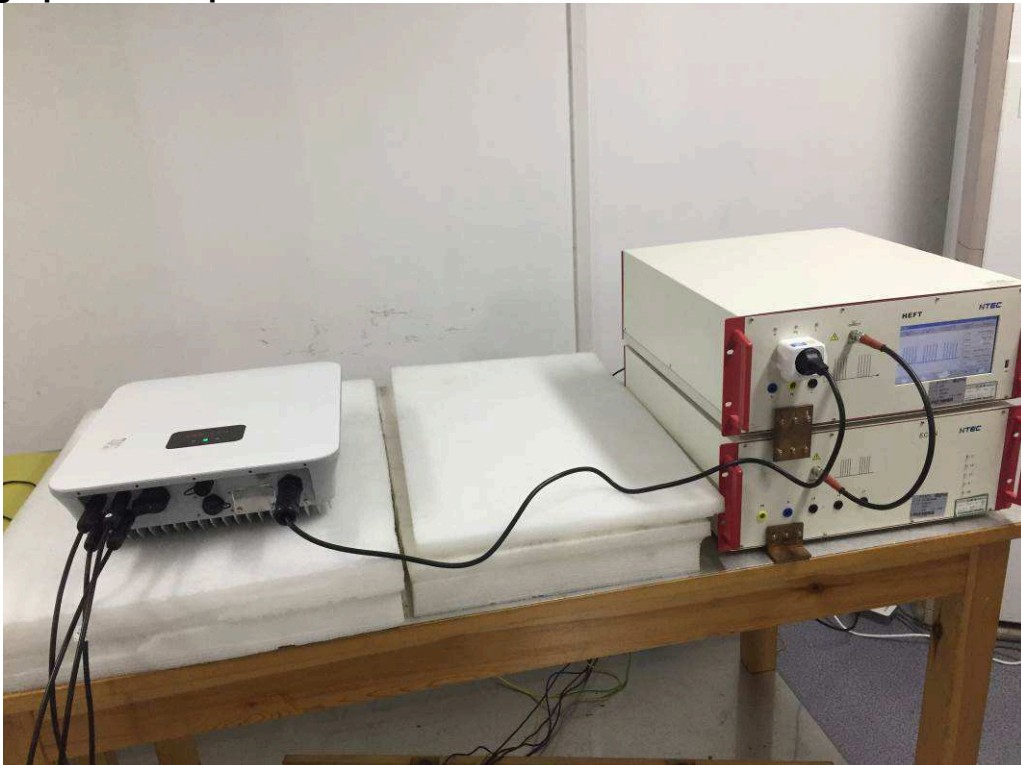
Photograph 6: Set-up for Conducted Susceptibility (CS)



Photograph 7: Set-up for Power-frequency Magnetic Fields



Photograph 8: Set-up for EFT





Photograph 9: Set-up for Surge





Photograph 10: Set-up for Electrostatic Discharges (ESD)



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深圳市巴伦技术股份有限公司

Test Result

Project Number: BL-SZ18A0051

Test Time: 2018-10-18

Temp.(°C): 25

Humidity (%): 55

Test Site: 3M-4

Test Standard: EN 61000-6-3

Test Engineer: CJL

EUT Name: PV Inverter

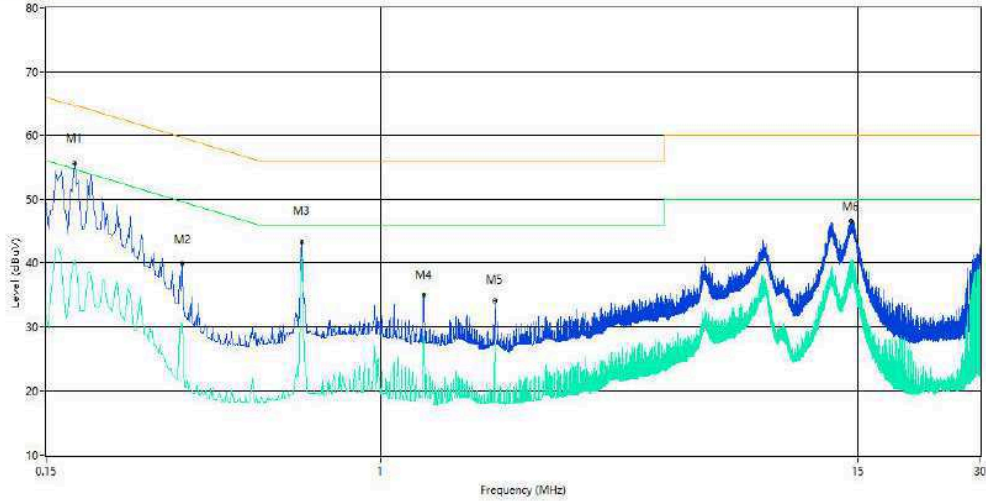
Model Number: EA3KSI

Serial Number: N/A

Work Mode: Full load

Remark: N/A

CE Test case_CE_EN 55032_Class B



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1*	0.176	51.38	10.01	64.7	-13.32	QP	L Line	Pass
1**	0.176	40.38	10.01	54.7	-14.32	AV	L Line	Pass



深圳市巴伦技术股份有限公司

2*	0.324	33.94	10.03	59.6	-25.66	QP	L Line	Pass
2**	0.324	30.61	10.03	49.6	-18.99	AV	L Line	Pass
3*	0.638	42.33	10.02	56.0	-13.67	QP	L Line	Pass
3**	0.638	41.24	10.02	46.0	-4.76	AV	L Line	Pass
4*	1.276	31.36	10.05	56.0	-24.64	QP	L Line	Pass
4**	1.276	28.79	10.05	46.0	-17.21	AV	L Line	Pass
5*	1.916	29.98	10.05	56.0	-26.02	QP	L Line	Pass
5**	1.916	26.79	10.05	46.0	-19.21	AV	L Line	Pass
6*	14.432	43.29	10.20	60.0	-16.71	QP	L Line	Pass
6**	14.432	37.70	10.20	50.0	-12.30	AV	L Line	Pass



深圳市巴伦技术股份有限公司

Test Result

Project Number: BL-SZ18A0051

Test Time: 2018-10-18

Temp.(°C): 25

Humidity (%): 55

Test Site: 3M-4

Test Standard: EN 61000-6-3

Test Engineer: CJL

EUT Name: PV Inverter

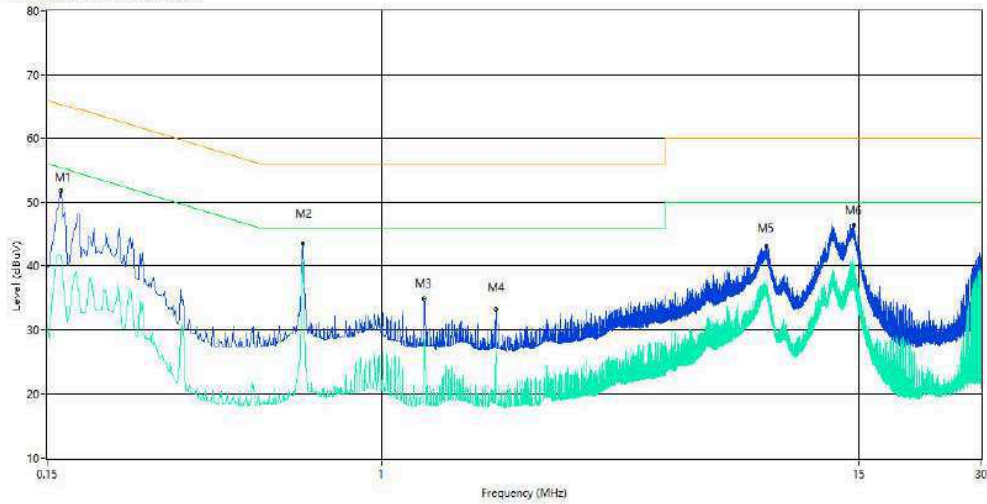
Model Number: EA3KSI

Serial Number: N/A

Work Mode: Full load

Remark: N/A

CE Test case_CE_EN 55032_Class B



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1*	0.158	46.94	10.01	65.6	-18.66	QP	N Line	Pass
1**	0.158	41.28	10.01	55.6	-14.32	AV	N Line	Pass



深圳市巴伦技术股份有限公司

2*	0.638	42.47	10.02	56.0	-13.53	QP	N Line	Pass
2**	0.638	41.33	10.02	46.0	-4.67	AV	N Line	Pass
3*	1.274	32.10	10.05	56.0	-23.90	QP	N Line	Pass
3**	1.274	29.26	10.05	46.0	-16.74	AV	N Line	Pass
4*	1.914	29.99	10.05	56.0	-26.01	QP	N Line	Pass
4**	1.914	26.91	10.05	46.0	-19.09	AV	N Line	Pass
5*	8.874	39.47	10.16	60.0	-20.53	QP	N Line	Pass
5**	8.874	36.21	10.16	50.0	-13.79	AV	N Line	Pass
6*	14.570	42.73	10.20	60.0	-17.27	QP	N Line	Pass
6**	14.570	36.61	10.20	50.0	-13.39	AV	N Line	Pass



深圳市巴伦技术股份有限公司

Test Result

Project Number: BL-SZ18A0051

Test Time: 2018-10-18

Temp.(°C): 25

Humidity (%): 55

Test Site: 3M-4

Test Standard: EN 61000-6-3

Test Engineer: CJL

EUT Name: PV Inverter

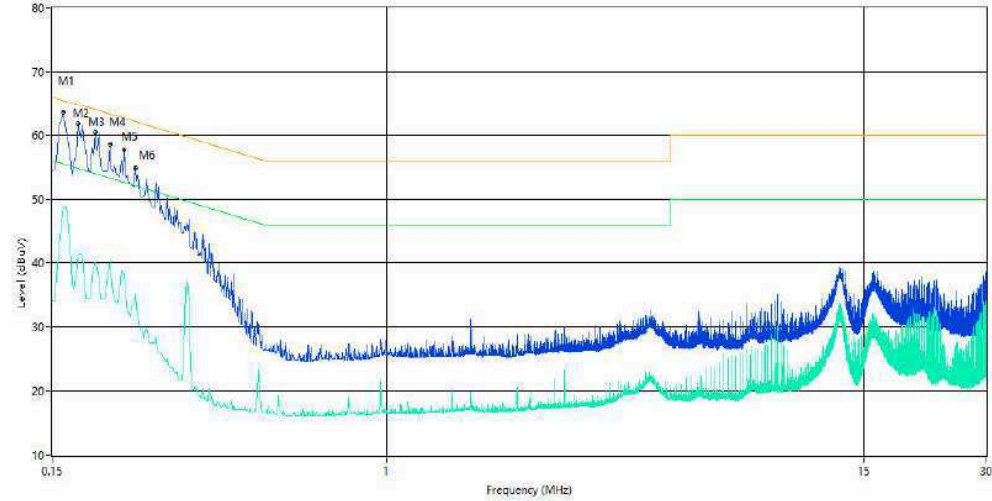
Model Number: EA6KSI

Serial Number: N/A

Work Mode: Full load

Remark: N/A

CE Test case_CE_EN 55032_Class B



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1*	0.160	61.02	10.01	65.5	-4.48	QP	N Line	Pass
1**	0.160	49.75	10.01	55.5	-5.75	AV	N Line	Pass



深圳市巴伦技术股份有限公司

2*	0.174	57.74	10.01	64.8	-7.06	QP	N Line	Pass
2**	0.174	42.06	10.01	54.8	-12.74	AV	N Line	Pass
3*	0.192	57.04	10.01	63.9	-6.86	QP	N Line	Pass
3**	0.192	41.57	10.01	53.9	-12.33	AV	N Line	Pass
4*	0.208	55.07	10.02	63.3	-8.23	QP	N Line	Pass
4**	0.208	40.89	10.02	53.3	-12.41	AV	N Line	Pass
5*	0.226	53.25	10.02	62.6	-9.35	QP	N Line	Pass
5**	0.226	38.72	10.02	52.6	-13.88	AV	N Line	Pass
6*	0.240	52.03	10.01	62.1	-10.07	QP	N Line	Pass
6**	0.240	35.56	10.01	52.1	-16.54	AV	N Line	Pass



深圳市巴伦技术股份有限公司

Test Result

Project Number: BL-SZ18A0051

Test Time: 2018-10-18

Temp.(°C): 25

Humidity (%): 55

Test Site: 3M-4

Test Standard: EN 61000-6-3

Test Engineer: CJL

EUT Name: PV Inverter

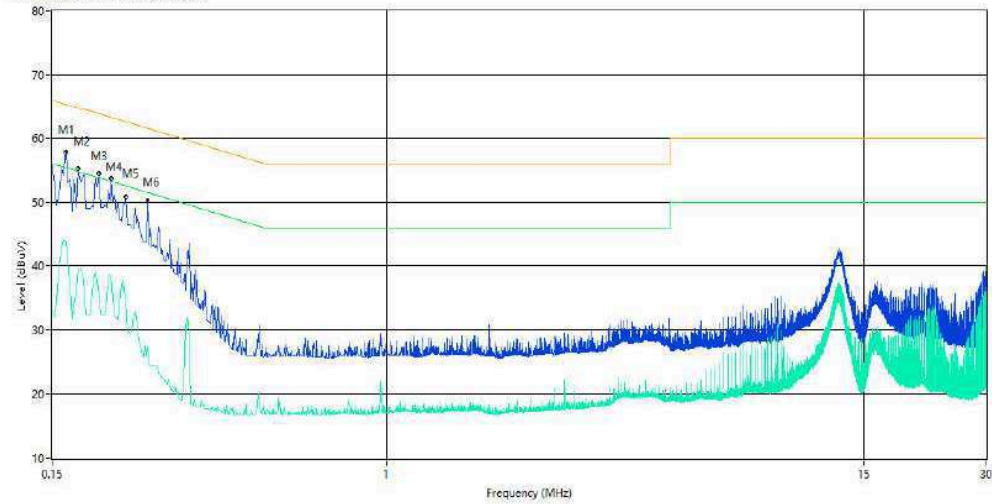
Model Number: EA6KSI

Serial Number: N/A

Work Mode: Full load

Remark: N/A

CE Test case_CE_EN 55032_Class B



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1*	0.162	54.69	10.01	65.4	-10.71	QP	L Line	Pass
1**	0.162	45.91	10.01	55.4	-9.49	AV	L Line	Pass



深圳市巴伦技术股份有限公司

2*	0.174	50.19	10.01	64.8	-14.61	QP	L Line	Pass
2**	0.174	39.76	10.01	54.8	-15.04	AV	L Line	Pass
3*	0.196	49.22	10.01	63.8	-14.58	QP	L Line	Pass
3**	0.196	35.85	10.01	53.8	-17.95	AV	L Line	Pass
4*	0.210	48.66	10.02	63.2	-14.54	QP	L Line	Pass
4**	0.210	38.22	10.02	53.2	-14.98	AV	L Line	Pass
5*	0.228	45.60	10.01	62.5	-16.90	QP	L Line	Pass
5**	0.228	34.32	10.01	52.5	-18.18	AV	L Line	Pass
6*	0.258	42.86	10.01	61.5	-18.64	QP	L Line	Pass
6**	0.258	26.54	10.01	51.5	-24.96	AV	L Line	Pass



深圳市巴伦技术股份有限公司

Test Result

Project Number: BL-SZ18A0051

Test Time: 2018-10-16

Temp.(°C): 25

Humidity (%): 55

Test Site: 10m

Test Standard: EN 61000-6-3

Test Engineer: N.A

EUT Name: PV Inverter

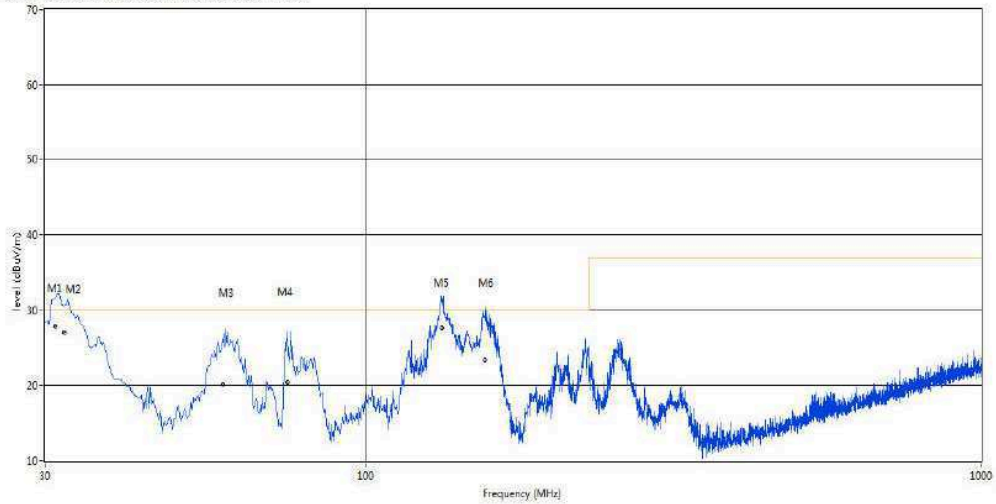
Model Number: EA3KSI

Serial Number: N/A

Work Mode: Full load

Remark: N/A

10m RE Test Case_CE Certification_EN 55032 Class B 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1*	31.205	27.84	-27.46	30.0	-2.16	QP	299.00	106	V	Pass
2*	32.240	27.01	-27.44	30.0	-2.99	QP	4.00	184	V	Pass



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3*	58.368	20.14	-27.77	30.0	-9.86	QP	202.00	164	V	Pass
4*	74.215	20.38	-30.52	30.0	-9.62	QP	356.00	164	V	Pass
5*	132.611	27.69	-27.09	30.0	-2.31	QP	255.00	130	V	Pass
6*	155.768	23.29	-25.68	30.0	-6.71	QP	60.00	117	V	Pass



深圳市巴伦技术股份有限公司

Test Result

Project Number: BL-SZ18A0051

Test Time: 2018-10-16

Temp.(°C): 25

Humidity (%): 55

Test Site: 10m

Test Standard: EN 61000-6-3

Test Engineer: N.A

EUT Name: PV Inverter

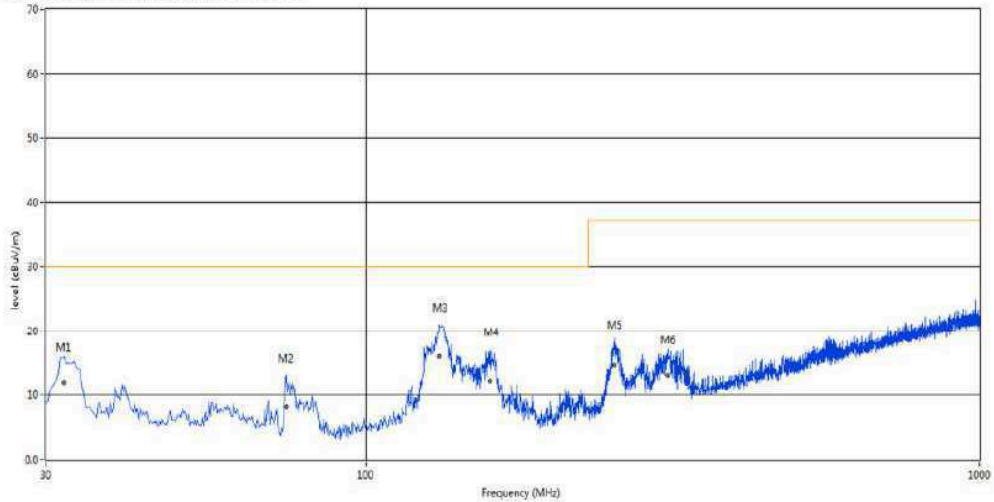
Model Number: EA3KSI

Serial Number: N/A

Work Mode: Full load

Remark: N/A

10m RE Test Case_CE Certification_EN 55032 Class B 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1*	32.182	11.75	-27.46	30.0	-18.25	QP	341.00	175	H	Pass
2*	74.135	9.10	-30.52	30.0	-20.90	QP	65.00	186	H	Pass



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3*	132.088	16.32	-27.17	30.0	-13.68	QP	314.00	145	H	Pass
4*	159.495	11.55	-25.83	30.0	-18.45	QP	148.00	132	H	Pass
5*	253.828	15.48	-27.22	37.0	-14.52	QP	259.00	147	H	Pass
6*	310.087	12.47	-25.48	37.0	-17.53	QP	93.00	105	H	Pass



深圳市巴伦技术股份有限公司

Test Result

Project Number: BL-SZ18A0051

Test Time: 2018-10-16

Temp.(°C): 25

Humidity (%): 55

Test Site: 10m

Test Standard: EN 61000-6-3

Test Engineer: N.A

EUT Name: PV Inverter

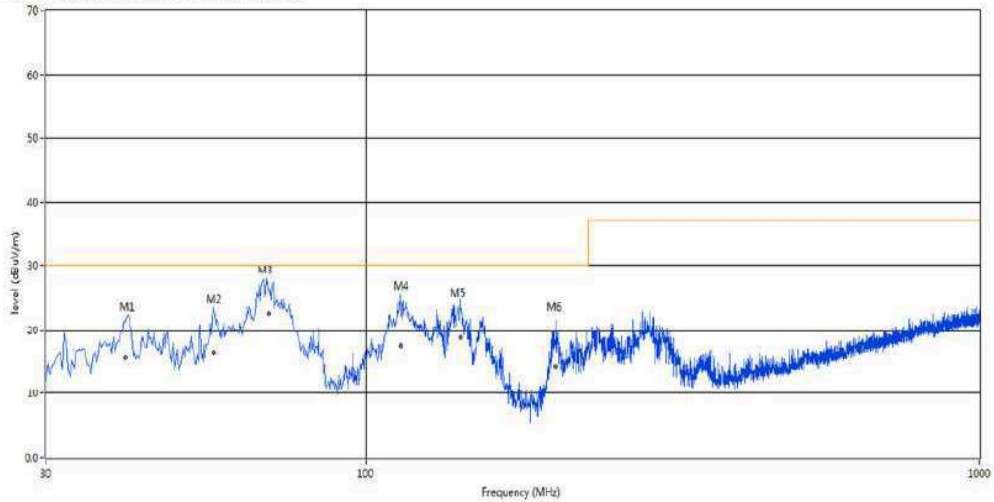
Model Number: EA6KSI

Serial Number: N/A

Work Mode: Full load

Remark: N/A

10m RE Test Case_CE Certification_EN 55022 Class B 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1*	40.413	15.69	-26.78	30.0	-14.31	QP	140.00	173	V	Pass
2*	56.393	16.31	-27.55	30.0	-13.69	QP	4.00	163	V	Pass



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3*	69.247	22.52	-29.50	30.0	-7.48	QP	263.00	158	V	Pass
4*	113.822	17.41	-28.59	30.0	-12.59	QP	16.00	154	V	Pass
5*	142.531	18.76	-26.38	30.0	-11.24	QP	166.00	196	V	Pass
6*	203.456	14.23	-29.37	30.0	-15.77	QP	228.00	101	V	Pass



深圳市巴伦技术股份有限公司

Test Result

Project Number: BL-SZ18A0051

Test Time: 2018-10-16

Temp.(°C): 25

Humidity (%): 55

Test Site: 10m

Test Standard: EN 61000-6-3

Test Engineer: N.A

EUT Name: PV Inverter

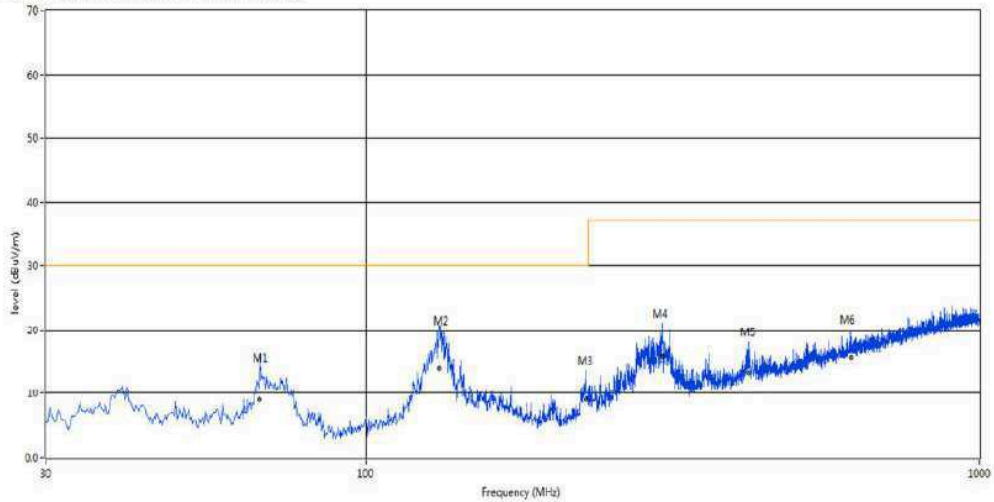
Model Number: EA6KSI

Serial Number: N/A

Work Mode: Full load

Remark: N/A

10m RE Test Case_CE Certification_EN 55022 Class B 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1*	66.895	8.94	-29.22	30.0	-21.06	QP	131.00	189	H	Pass
2*	131.421	13.90	-27.15	30.0	-16.10	QP	255.00	119	H	Pass



深圳市巴伦技术股份有限公司

3*	228.016	8.99	-28.21	30.0	-21.01	QP	78.00	193	H	Pass
4*	303.998	15.83	-25.53	37.0	-21.17	QP	255.00	176	H	Pass
5*	436.130	12.03	-22.83	37.0	-24.97	QP	174.00	135	H	Pass
6*	616.365	16.23	-17.47	37.0	-20.77	QP	60.00	102	H	Pass

HA-PC Link Plus. Software v2.02. Firmware v3.02

Report Number : BL-SZ18A0051

Tested On : 01 Nov. 2018 10:58 for 150 Seconds.

Equipment Under Test : PV Inverter

Serial Number : EA3KSI

Tested by : ANDY

Supply Voltage : 228.9 to 229.1 Vrms 337.0 Vpk Frequency : 50.00 to 50.03 Hz

Load Power : 2.816 kW 2.842 kVA Power Factor 0.99

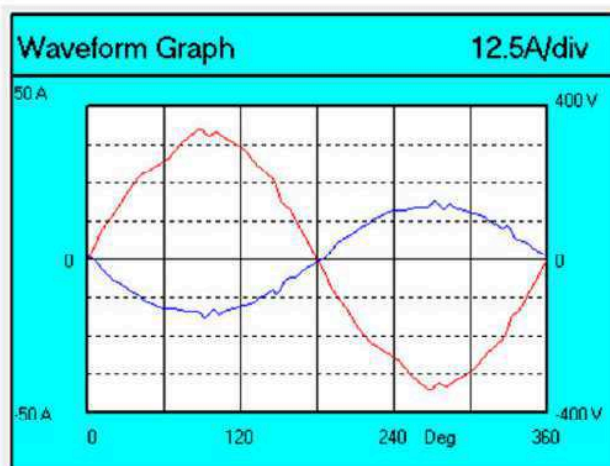
Load Current : 12.4 Arms 18.3 Apk Crest Factor: 1.454

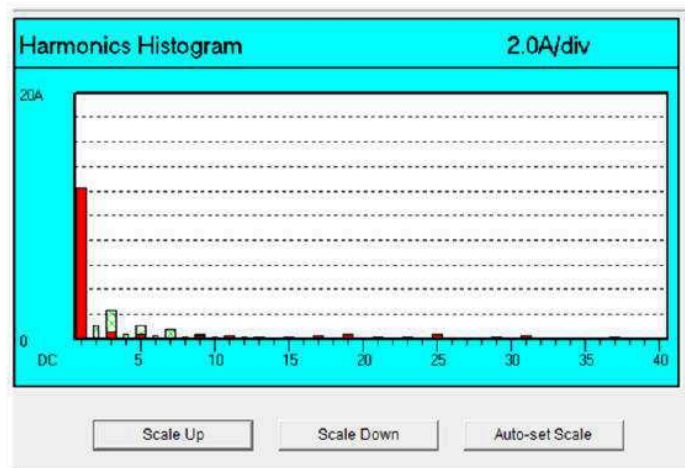
Supply Meets EN Requirements

I-THD(%) : 5.46

THC(A) : 0.67

Limits Applied : EN61000-3-2:2014 Class A Limits Apply.





Harmonic	Limit	Average	%	max. Value	%	Assessment
Number	Current	(filtered)	Limit	(Filtered)	Limit	
	A	A		A		
Fundamental :		12.323				
2 :	1.080	0.086	8.0	0.119	11.0	Pass
3 :	2.300	0.306	13.3	0.320	13.9	Pass
4 :	0.430	0.036	8.4	0.050	11.6	Pass
5 :	1.140	0.204	17.9	0.212	18.6	Pass
6 :	0.300	0.022	7.3	0.024	8.0	Pass
7 :	0.770	0.062	8.1	0.066	8.6	Pass
8 :	0.230	0.019	8.3	0.024	10.4	Pass
9 :	0.400	0.134	33.5	0.143	35.8	Pass
10 :	0.184	0.016	8.7	0.018	9.8	Pass
11 :	0.330	0.140	42.4	0.149	45.2	Pass
12 :	0.153	0.015	9.8	0.018	11.8	Pass
13 :	0.210	0.080	38.1	0.116	55.2	Pass
14 :	0.131	0.014	10.7	0.017	13.0	Pass
15 :	0.150	0.045	30.0	0.066	44.0	Pass

16 :	0.115	0.015	13.0	0.015	13.0	Pass
17 :	0.132	0.114	86.4	0.126	95.5	Pass
18 :	0.102	0.015	14.7	0.017	16.7	Pass
19 :	0.118	0.041	34.7	0.045	38.1	Pass
20 :	0.092	0.015	16.3	0.018	19.6	Pass
21 :	0.107	0.094	87.9	0.103	96.3	Pass
22 :	0.084	0.015	17.9	0.017	20.2	Pass
23 :	0.098	0.043	43.9	0.071	72.4	Pass
24 :	0.077	0.015	19.5	0.017	22.1	Pass
25 :	0.090	0.031	34.4	0.034	37.7	Pass
26 :	0.071	0.015	21.1	0.015	21.1	Pass
27 :	0.083	0.046	55.4	0.057	68.7	Pass
28 :	0.066	0.013	19.7	0.015	22.7	Pass
29 :	0.078	0.015	21.1	0.019	24.4	Pass
30 :	0.061	0.011	18.0	0.012	19.7	Pass
31 :	0.073	0.027	37.0	0.035	48.0	Pass
32 :	0.057	0.010	17.5	0.011	19.3	Pass
33 :	0.068	0.045	66.2	0.051	75.0	Pass
34 :	0.054	0.008	14.8	0.010	18.5	Pass
35 :	0.064	0.024	37.5	0.031	48.4	Pass
36 :	0.051	0.008	15.7	0.008	15.7	Pass
37 :	0.061	0.021	34.4	0.024	39.3	Pass
38 :	0.048	0.008	16.7	0.010	20.8	Pass
39 :	0.058	0.057	98.3	0.069	119.0	Pass
40 :	0.046	0.009	19.6	0.010	21.7	Pass

Evaluated Using the 200% Max and 90% Average Rule

	Harmonic Current	文件编号:	TR4-9
		版 本:	V1.0
		项 目 号:	BL-SZ18A0051

Test Verdict:	
<input checked="" type="checkbox"/> Pass;	Test engineer: jiang pan Data: 2018.11.5
<input type="checkbox"/> Fail	

Flicker

HA-PC Link Plus. Software v2.02. Firmware v3.02
 Report Number : BL-SZ18A0051
 Tested On : 01 Nov. 2018
 Equipment Under Test : PV Inverter
 Serial Number : EA3KSI
 Tested by : ANDY

Supply Voltage : 230.1 Vrms 334.6 Vpk Frequency : 50.00 Hz
 Load Current : 12.4 Arms 18.3 Apk Crest Factor: 1.454

EN 61000-3-3:2013 - Voltage reduction is positive

Voltage Variations :

Highest Level:	0.11%	
Lowest Level:	0.02%	
d(max):	0.09%	PASS
Highest d(t) of 500ms:	0.00%	PASS
Present d(t) over 3.33%:	0.00 Seconds	
Longest d(t) over 3.33%:	0.00 Seconds	
Highest Steady State:	+0.00%	
Lowest Steady State:	0.00%	
Max d(c) Between Adjacent:	0.00%	PASS
Max d(c) Between Any:	0.00%	
Short Term Flicker Pst:	0.08	PASS
Long Term Flicker Plt:	0.00	PASS

Flicker Results :

Pst Classifier	Flicker	Plt Calculation Interval	Pst
Duration			
0.1%	0.06		
0.7%	0.04	1:	0.08
1.0%	0.03	2:	0.00
1.5%	0.02	3:	0.00
2.2%	0.02	4:	0.00
3%	0.02	5:	0.00
4%	0.02	6:	0.00
6%	0.02	7:	0.00
8%	0.01	8:	0.00
10%	0.01	9:	0.00
13%	0.01	10:	0.00
17%	0.01	11:	0.00
30%	0.00	12:	0.00
50%	0.00	Plt =	0.00
80%	0.00		

	Voltage Fluctuations & Flicker	文件编号:	TR4-10
		版本:	V1.0
		项目编号:	BL-SZ18A0051

Basic information		
Manufacturer: EAST Group Co., Ltd.	EUT Name: PV Inverter	
Model Name: EA6KSI	Temperature: 25 (15-35°C)	
Test Standard: EN 61000-3-11	Humidity: 55 (30-60%RH)	
Rating: AC 230/ 50Hz	Pressure: 102 (86-106kPa)	
Operation Mode: ON	Test time: 2018.11.5	
Parameter		
Test Item	Limit	
Pst	1.0	0.13
Plt	0.65	0.00
Tdt	0.5	0.00
dmax (%)	4%	0.11
dc (%)	3.3%	0.00
Result		
Test Verdict: <input checked="" type="checkbox"/> Pass; <input type="checkbox"/> Fail		
Test engineer: Jiang Pan		Data: 2018.11.5

	Electrostatic discharge Immunity	No:	TR4-5
		Version:	V1. 0
		Item:	BL-SZ18A0051

Basic information				
Manufacturer: EAST Group Co., Ltd.		EUT Name: PV Inverter		
Model Name: EA3KSI, EA6KSI		Temperature: 25 (15-35°C)		
Test Standard: EN 61000-6-1/-2		Humidity: 55 (30-60%RH)		
Rating: AC 230/ 50Hz		Pressure: 102 (86-106kPa)		
Operation Mode: ON		Test time: 2018.10.18		
Level				
air discharge: <input checked="" type="checkbox"/> ±2kV <input checked="" type="checkbox"/> ±4kV <input type="checkbox"/> ±6kV <input checked="" type="checkbox"/> ±8kV <input type="checkbox"/> ± kV		Criterion	<input type="checkbox"/> A; <input checked="" type="checkbox"/> B; <input type="checkbox"/> C;	
Con discharge: <input checked="" type="checkbox"/> ±2kV <input checked="" type="checkbox"/> ±4kV <input type="checkbox"/> ±6kV <input type="checkbox"/> ±8kV <input type="checkbox"/> ± kV				
Result				
Test Point	Discharge Level kV	Discharge Mode	Performance	Verdict
Power Port	±2,4,8	<input checked="" type="checkbox"/> Air, <input type="checkbox"/> Contact	normal	A
LED Light	±2,4,8	<input checked="" type="checkbox"/> Air, <input type="checkbox"/> Contact	normal	A
Gap	±2,4,8	<input checked="" type="checkbox"/> Air, <input type="checkbox"/> Contact	normal	A
Screen	±2,4,8	<input checked="" type="checkbox"/> Air, <input type="checkbox"/> Contact	normal	A
Screw & Metal	±2,4	<input type="checkbox"/> Air, <input checked="" type="checkbox"/> Contact	normal	A
VCP	±2,4	<input type="checkbox"/> Air, <input checked="" type="checkbox"/> Contact	normal	A
HCP	±2,4	<input type="checkbox"/> Air, <input checked="" type="checkbox"/> Contact	normal	A
General Performance Criteria				
The dwell time at each frequency is according to the standard being applied and the basic standard.				
A: Normal performance within the specification limits				

	Electrostatic discharge Immunity	No:	TR4-5
		Version:	V1. 0
		Item:	BL-SZ18A0051

<p>B: Temporary degradation or loss of function or performance which is self-recoverable</p> <p>C: Temporary degradation or loss of function or performance which requires operator intervention or system reset</p> <p>D: Degradation or loss of function which is not recoverable due to damage of equipment (components) or software, or loss of data</p>	
Test Verdict: <input checked="" type="checkbox"/> Pass	Test engineer: LXG Data: 2018.10.18

	Radiated, Radio Frequency Electromagnetic Field Immunity	No:	TR4-7
		Version:	V1.0
		Item:	BL-SZ18A0051

Basic information					
Manufacturer: EAST Group Co., Ltd.		EUT Name: PV Inverter			
Model Name: EA3KSI, EA6KSI		Temperature: 25 (15-35°C)			
Test Standard: EN 61000-6-1/-2		Humidity: 55 (30-60%RH)			
Rating: AC 230/ 50Hz		Pressure: 102 (86-106kPa)			
Operation Mode: ON		Test time: 2018.12.19			
Level					
Radiated Field: <input checked="" type="checkbox"/> 1V/m <input checked="" type="checkbox"/> 3V/m <input checked="" type="checkbox"/> 10V/m <input type="checkbox"/> 30V/m			Criterion	<input checked="" type="checkbox"/> A; <input type="checkbox"/> B; <input type="checkbox"/> C; <input type="checkbox"/> D	
Result					
Frequency Range (MHz)	Antenna Polarity	Position	Level (V/m)	Performance	Verdict
80 - 1000	<input checked="" type="checkbox"/> Horizontal	<input checked="" type="checkbox"/> Front <input checked="" type="checkbox"/> Right	3, 10	normal	A
	<input checked="" type="checkbox"/> Vertical	<input checked="" type="checkbox"/> Rear <input checked="" type="checkbox"/> Left			
1400 - 2000	<input checked="" type="checkbox"/> Horizontal	<input checked="" type="checkbox"/> Front <input checked="" type="checkbox"/> Right	3	normal	A
	<input checked="" type="checkbox"/> Vertical	<input checked="" type="checkbox"/> Rear <input checked="" type="checkbox"/> Left			
2000 - 2700	<input checked="" type="checkbox"/> Horizontal	<input checked="" type="checkbox"/> Front <input checked="" type="checkbox"/> Right	1	normal	A
	<input checked="" type="checkbox"/> Vertical	<input checked="" type="checkbox"/> Rear <input checked="" type="checkbox"/> Left			
General Performance Criteria					
The dwell time at each frequency is according to the standard being applied and the basic standard.					
A: Normal performance within the specification limits					
B: Temporary degradation or loss of function or performance which is self-recoverable					
C: Temporary degradation or loss of function or performance which requires operator intervention or system reset					
D: Degradation or loss of function which is not recoverable due to damage of equipment (components) or software.					

	Radiated, Radio Frequency Electromagnetic Field Immunity	No:	TR4-7
		Version:	V1. 0
		Item:	BL-SZ18A0051

or loss of data

Test Verdict:

Pass

Test engineer: HGQ

Date: 2018.12.19

	Electrical Fast Transient/Burst Immunity	No:	TR4-4
		Version:	V1.0
		Item:	BL-SZ18A0051

Basic information			
Manufacturer: EAST Group Co., Ltd.		EUT Name: PV Inverter	
Model Name: EA3KSI, EA6KSI		Temperature: 25 (15-35°C)	
Test Standard: EN 61000-6-1/-2		Humidity: 55 (30-60%RH)	
Rating: AC 230/ 50Hz		Pressure: 102 (86-106kPa)	
Operation Mode: ON		Test time: 2018.12.19	
Level			
<input checked="" type="checkbox"/> Power port: <input checked="" type="checkbox"/> ±0.5kV <input checked="" type="checkbox"/> ±1kV <input checked="" type="checkbox"/> ±2kV <input type="checkbox"/> ± kV		Criterion	<input type="checkbox"/> A; <input checked="" type="checkbox"/> B; <input type="checkbox"/> C
<input type="checkbox"/> Signal ports and telecommunication ports: <input type="checkbox"/> ±0.5kV <input type="checkbox"/> ±1kV <input type="checkbox"/> ±2kV <input type="checkbox"/> ± kV			
Parameters			
Pulse: <input checked="" type="checkbox"/> 5/50ns; <input type="checkbox"/> Other _____;		Frequency: <input checked="" type="checkbox"/> 5kHz, <input type="checkbox"/> 0.25kHz, <input type="checkbox"/> Other _____;	
Duration: <input checked="" type="checkbox"/> 15ms, <input type="checkbox"/> Other _____;		Interval: <input checked="" type="checkbox"/> 300ms, <input type="checkbox"/> Other _____;	
Test time: <input checked="" type="checkbox"/> 120s			
Result			
Test Mode	Level / kV	Performance	Verdict
L	±1, ±2	normal	A
N	±1, ±2	normal	A
PE	±1, ±2	normal	A
L.N	±1, ±2	normal	A
L.PE	±1, ±2	normal	A
N.PE	±1, ±2	normal	A

	Electrical Fast Transient/Burst Immunity	No:	TR4-4
		Version:	V1. 0
		Item:	BL-SZ18A0051

L.N.PE	±1, ±2	normal	A
DC Port	±0.5, ±2	normal	A

General Performance Criteria

The dwell time at each frequency is according to the standard being applied and the basic standard.

A: Normal performance within the specification limits

B: Temporary degradation or loss of function or performance which is self-recoverable

C: Temporary degradation or loss of function or performance which requires operator intervention or system reset

D: Degradation or loss of function which is not recoverable due to damage of equipment (components) or software, or loss of data

Test Verdict:

Pass

Test engineer: LXG Data :2018.12.19

	<h3>Surge Immunity</h3>	No:	TR4-8
		Version:	V1.0
		Item:	BL-SZ18A0051

Basic information			
Manufacturer: EAST Group Co., Ltd.		EUT Name: PV Inverter	
Model Name: EA3KSI, EA6KSI		Temperature: 25 (15-35°C)	
Test Standard: EN 61000-6-1/-2		Humidity: 55 (30-60%RH)	
Rating: AC 230/ 50Hz		Pressure: 102 (86-106kPa)	
Operation Mode: ON		Test time: 2018.10.23	
Level			
<input checked="" type="checkbox"/> AC power port: <input checked="" type="checkbox"/> ±0.5kV <input checked="" type="checkbox"/> ±1kV <input checked="" type="checkbox"/> ±2kV <input type="checkbox"/> ± kV		Criterion	<input type="checkbox"/> A; <input checked="" type="checkbox"/> B; <input type="checkbox"/> C
<input checked="" type="checkbox"/> DC power port: <input checked="" type="checkbox"/> ±0.5kV <input type="checkbox"/> ±1kV <input type="checkbox"/> ±2kV <input type="checkbox"/> ± kV			
<input type="checkbox"/> Signal and TEL: <input type="checkbox"/> ±0.5kV <input checked="" type="checkbox"/> ±1kV <input type="checkbox"/> ±2kV <input type="checkbox"/> ± kV			
Parameters			
Waveform: <input checked="" type="checkbox"/> 1.2/50µs; <input type="checkbox"/> 10/700µs;		Phase position(AC power port): <input checked="" type="checkbox"/> 0° <input checked="" type="checkbox"/> 90° <input checked="" type="checkbox"/> 180° <input checked="" type="checkbox"/> 270°;	
Number: Negative/Positive 5 times		Duration: <input checked="" type="checkbox"/> 60s	
Result			
Test Mode	Level / kV	Performance	Verdict
L-N	±0.5, ±1	normal	A
L-PE	±0.5, ±1, ±2	normal	A
N-PE	±0.5, ±1, ±2	normal	A
DC(Line-earth)	±0.5	normal	A
DC(Line-Line)	±0.5	normal	A
General Performance Criteria			

	Surge Immunity	No:	TR4-8
		Version:	V1. 0
		Item:	BL-SZ18A0051

The dwell time at each frequency is according to the standard being applied and the basic standard.

A: Normal performance within the specification limits

B: Temporary degradation or loss of function or performance which is self-recoverable


C: Temporary degradation or loss of function or performance which requires operator intervention or system reset

D: Degradation or loss of function which is not recoverable due to damage of equipment (components) or software, or loss of data

Test Verdict:	
<input checked="" type="checkbox"/> Pass	Test engineer: ANDY Data: 2018.10.23

	Conducted Disturbances Immunity	No:	TR4-2
		Version:	V1.0
		Item:	BL-SZ18A0051

Basic information				
Manufacturer: EAST Group Co., Ltd.		EUT Name: PV Inverter		
Model Name: EA3KSI, EA6KSI		Temperature: 25 (15-35°C)		
Test Standard: EN 61000-6-1/-2		Humidity: 55 (30-60%RH)		
Rating: AC 230/ 50Hz		Pressure: 102 (86-106kPa)		
Operation Mode: ON		Test time: 2018.12.19		
Level				
Radiated Field: <input type="checkbox"/> 1V rms <input checked="" type="checkbox"/> 3V rms <input checked="" type="checkbox"/> 10V rms		Criterion	<input checked="" type="checkbox"/> A; <input type="checkbox"/> B; <input type="checkbox"/> C	
Result				
TEST MODE	Frequency Range(MHz)	Level (V rms)	Performance	Verdict
AC Mains	0.15-80	3, 10	normal	A
DC port	0.15-80	3, 10	normal	A
General Performance Criteria				
The dwell time at each frequency is according to the standard being applied and the basic standard.				
A: Normal performance within the specification limits				
B: Temporary degradation or loss of function or performance which is self-recoverable				
C: Temporary degradation or loss of function or performance which requires operator intervention or system reset				
D: Degradation or loss of function which is not recoverable due to damage of equipment (components) or software, or loss of data				
Test Verdict:		Test engineer: HGQ Data : 2018.12.19		
<input checked="" type="checkbox"/> Pass				

	Power Frequency Magnetic Field Immunity	No:	TR4-6
		Version:	V1.0
		Item:	BL-SZ18A0051

Basic information			
Manufacturer: EAST Group Co., Ltd.		EUT Name: PV Inverter	
Model Name: EA3KSI, EA6KSI		Temperature: 25 (15-35°C)	
Test Standard: EN 61000-6-1/-2		Humidity: 55 (30-60%RH)	
Rating: AC 230, 50/60Hz		Pressure: 102 (86-106kPa)	
Operation Mode: ON		Test time: 2018.12.19	
Level			
Radiated Field: <input type="checkbox"/> 1A <input checked="" type="checkbox"/> 3A <input type="checkbox"/> 10A <input checked="" type="checkbox"/> 30A <input type="checkbox"/> 100 A <input type="checkbox"/>		判据要求	<input checked="" type="checkbox"/> A; <input type="checkbox"/> B; <input type="checkbox"/> C;
A			
Result			
Test direction	Test level	Performance	Verdict
X, Y, Z	3A/m, 30A/m	normal	A
判定规则			
The dwell time at each frequency is according to the standard being applied and the basic standard.			
A: Normal performance within the specification limits			
B: Temporary degradation or loss of function or performance which is self-recoverable			
C: Temporary degradation or loss of function or performance which requires operator intervention or system reset			
D: Degradation or loss of function which is not recoverable due to damage of equipment (components) or software, or loss of data			
Test Verdict:			
<input checked="" type="checkbox"/> Pass		Test engineer: LXG Data: 2018.12.19	

Measurement Uncertainties

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus.

The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor of $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Table 1: Measurement Uncertainty levels

Test	Parameters	Expanded uncertainty (U_{lab})	Expanded uncertainty (U_{cispr})
Conducted Emission	Level accuracy (9kHz to 150kHz) (150kHz to 30MHz)	± 3.23 dB ± 3.23 dB	± 3.8 dB ± 3.4 dB
Power disturbance	Level accuracy (30MHz to 300MHz)	± 2.80 dB	± 4.5 dB
Electromagnetic Radiated Emission (3-loop)	Level accuracy (9kHz to 30MHz)	± 3.97 dB	N/A
Radiated Emission	Level accuracy (30MHz to 1000MHz, Horizontal) (30MHz to 1000MHz, Vertical)	± 4.30 dB ± 4.30 dB	± 6.3 dB
Radiated Emission	Level accuracy (above 1000MHz, Horizontal) (above 1000MHz, Vertical)	± 4.81 dB ± 4.81 dB	N/A
Mains Harmonic	Voltage	$\pm 0.1\%$	N/A
Voltage Fluctuations & Flicker	Voltage	$\pm 0.8\%$	N/A

As U_{lab} in all applicable tests listed above are less than U_{cispr} according to CISPR 16-4-2:2011,

- compliance is deemed to occur if no measured disturbance exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance exceeds the disturbance limit.