TEST REPORT

Report Reference No.	:	6052106.51E
Tested by (name + signature)	:	Jun Wan
Approved by (name + signature)	:	Allan Chen
Date of issue	:	2019-08-16
Dates tests performed	:	2019-06-04 to 2019-06-05
Contents / enclosures	:	N/A
Testing Laboratory	:	DEKRA Testing and Certification (Shanghai) Ltd
Testing location / address	:	3F, #250 Jiangchangsan Road, Building 16, Headquarter Economy Park Shibei Hi-Tech Park, Zhabei District, Shanghai 200436, China
Applicant	:	EAST Group Co., Ltd.
Address	:	No.6 Northern Industry Road, Songshan Lake Sci. & Tech. Industrial Park, Dongguan City, Guangdong Province, China
Test specification:		
Standards	:	IEC 60529:1989+A1:1999+A2:2013 EN 60529:1991+A1:2000+A2:2013 IEC 62109-1:2010 (clause 6.3) EN 62109-1:2010 (clause 6.3)
Test procedure	:	☐ Basic safety test ☐ Screen test ☐ Quick scan ☐ Basic EMC test ☐ Flash test ☒ IP65 ☐ Environmental test ☐ Fitness for use
Test object description	:	Grid-connected PV Inverter
Trade Mark	:	EAST
Manufacturer	:	EAST Group Co., Ltd.
Address	:	No.6 Northern Industry Road, Songshan Lake Sci. & Tech. Industrial Park, Dongguan City, Guangdong Province, China
Model/Type reference	:	EA5KTSI, EA6KTSI, EA8KTSI, EA10KTSI, EA13KTSI, EA16KTSI

Ratings	:	EA5KTSI: PV input: Max. 1000 Vdc, MPPT voltage range: 120-950 Vdc, max 11A /11 A, Isc PV: 12 A/12 A Output: 230/400 Vac, 3/N/PE, 50 Hz, 5000 VA, max 7.3 A EA6KTSI: PV input: Max. 1000 Vdc, MPPT voltage range: 120-950 Vdc, max 11 A/11 A, Isc PV: 12 A/12 A Output: 230/400 Vac, 3/N/PE, 50 Hz, 6000 VA, max 8.7 A EA8KTSI: PV input: Max. 1000 Vdc, MPPT voltage range: 120-950 Vdc, max 11 A/11 A, Isc PV: 12 A/12 A Output: 230/400 Vac, 3/N/PE, 50 Hz, 8000 VA, max 11.6 A EA10KTSI: PV input: Max. 1000 Vdc, MPPT voltage range: 200-950 Vdc, max 11 A, Isc PV: 12 A/12 A Output: 230/400 Vac, 3/N/PE, 50 Hz, 10000 VA, max 14.5 A EA13KTSI: PV input: Max. 1000 Vdc, MPPT voltage range: 200-950 Vdc, max 22 A/11 A, Isc PV: 24 A/12 A Output: 230/400 Vac, 3/N/PE, 50 Hz, 13000 VA, max 18.9 A EA16KTSI: PV input: Max. 1000 Vdc, MPPT voltage range: 200-950 Vdc, max 22 A/11 A, Isc PV: 24 A/12 A Output: 230/400 Vac, 3/N/PE, 50 Hz, 16000 VA, max 23.2 A
Number of test objects	:	1 pcs

Possible test case verdicts:

- test case does not apply to the test object	:	N/A
- test object does meet the requirement	:	P(Pass)
- test object does not meet the requirement	:	F(Fail)

Test program	:	The test object has been submitted to a test program as mentioned on the next page.

Summary of test results:

The test performed on EA16KTSI is valid for EA13KTSI, EA10KTSI, EA8KTSI, EA6KTSI and EA5KTSI due to that they have same metal enclosure. After test, no deposit of dust is observable inside the enclosure and no water entered into the enclosure of sample.

According to standard of IEC 60529:2013 (Edition 2.2) / IEC 60529:1989+A1:1999+A2:2013, EN 60529:1991+A1:2000+A2:2013, IEC 62109-1:2010 (clause 6.3), the test result is accepted.

The test results shown in this report relate only to the tests performed according to the test program. The test object has not been submitted to a full test program.

Test program:

This test is according to clause 12.2, 13.4 & 13.6 (IP6X) & 14.2.5 (IPX5) & 14.3 of IEC/EN 60529.

Acceptance condition for first characteristic numeral 6:

The enclosure of the unit under test was considered as Category 1: Enclosures where the normal working cycle of the equipment causes reductions in air pressure within the enclosure below that of

the surrounding air.

The protection is satisfactory if no deposit of dust is observable inside the enclosure at the end of the test.

Acceptance condition for secondary characteristic numeral 5:

It is the responsibility of the relevant technical committee to specify the amount of water which may be allowed to enter the enclosure and the details of a dielectric strength test, if any.

14.3 Acceptance conditions:

After testing in accordance with the appropriate requirements of 14.2.1 to 14.2.8 the enclosure shall be inspected for ingress of water.

It is the responsibility of the relevant technical committee to specify the amount of water which may be allowed to enter the enclosure and the details of a dielectric strength test, if any.

In general, if any water has entered, it shall not:

– be sufficient to interfere with the correct operation of the equipment or impair safety;

– deposit on insulation parts where it could lead to tracking along the creepage distances;

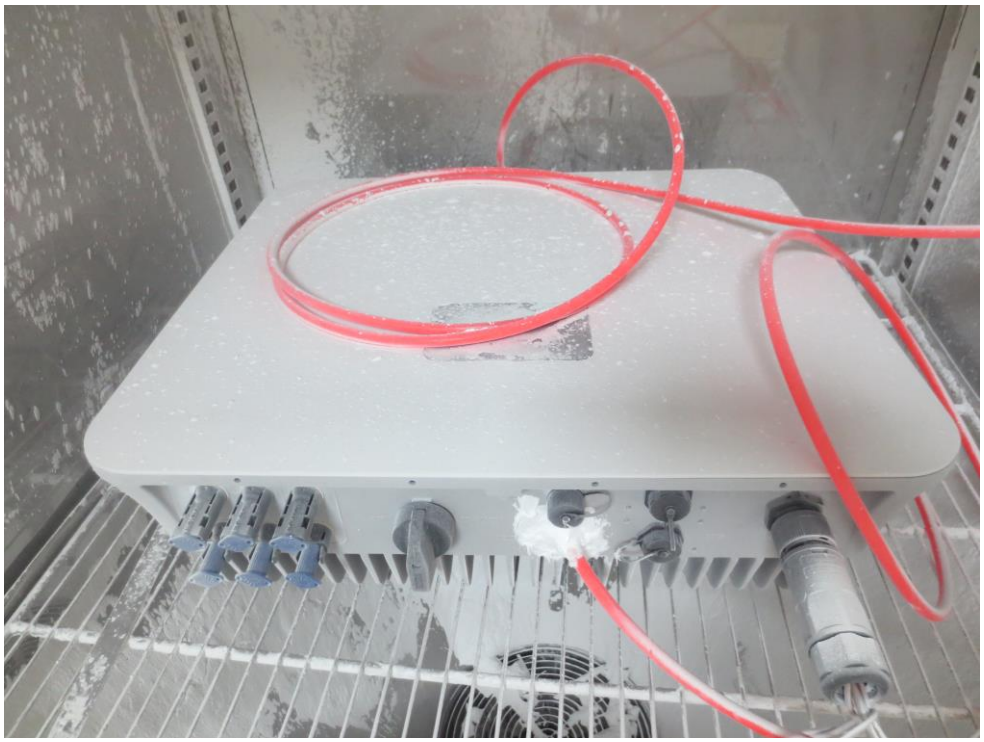
– reach live parts or windings not designed to operate when wet;

– accumulate near the cable end or enter the cable if any.

If the enclosure is provided with drain-holes, it should be proved by inspection that any water which enters does not accumulate and that it drains away without doing any harm to the equipment.

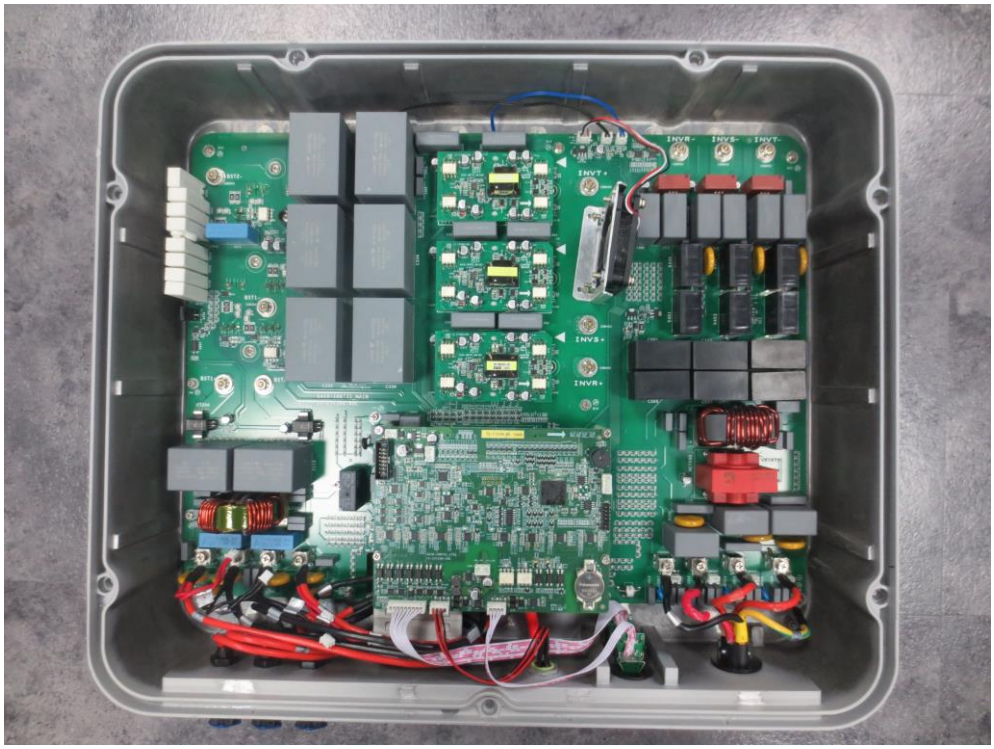
For enclosures without drain-holes, the relevant product standard shall specify the acceptance conditions if water can accumulate to reach live parts.

Picture during IP6X test:



Picture during IPX5 test:

Pictures after IP65 test:



Pictures after IP65 test:

After IP65 test, there was no deposit of dust & no trace of water inside of the enclosure

--- End of test report---