

TEST REPORT

| | |
|-----------------|--------------------------------------------|
| Client Name | Shenzhen KSTAR New Energy Company Limited. |
| Name of product | GRID-TIED SOLAR INVERTER |
| Manufacturer | Shenzhen KSTAR New Energy Company Limited. |
| Model | BluE-G 8000D |
| Test Sort | Commission Test |



CCIC Southern Testing Co., Ltd.

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**CCIC Southern Testing Co., Ltd.****TEST REPORT**

| | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------|-----------------------|--------------------|----------|
| Name of product | GRID-TIED SOLAR INVERTER | | Trade mark | ---- | |
| Manufacturer | Shenzhen KSTAR New Energy Company Limited. | | Model | BluE-G 8000D | |
| Client | Shenzhen KSTAR New Energy Company Limited. | | Sampling method | Sent by Client | |
| Sampler | ---- | | Amount of samples | ---- | |
| Sampling place | ---- | | Quantity of samples | 1Pcs | |
| Production date | ---- | Sampling date | ----- | Application data | 2022-8-9 |
| Test date | 2022-8-9~2022-8-22 | | Environment condition | 15-35°C, 45-75% RH | |
| Sample description: | | | | | |
| One sample, in good condition before test. Number: 1#. | | | | | |
| Test item: | | | | | |
| Salt mist test, Low temperature test, IP6X Dust-proof test, IPX5Water-proof test. | | | | | |
| Reference documents: | | | | | |
| IEC 60068-2-1 :2007 Environmental testing - Part 2-1: Tests - Test A: Cold. IEC 60068-2-11:1981 Basic environmental testing procedures. Part 2 : Tests. Test Ka: Salt mist. IEC 60529:1989+A1:1999+A2:2013 Degrees of protection provided by enclosures (IP Code). | | | | | |
| Summary: | | | | | |
| According to the requirement, sample has been performed,Salt mist test, Low temperature test, IP6X Dust-proof test, IPX5Water-proof test.. The appearance and function of sample are both normal after test, refer to followed report for detail. | | | | | |
| Test conclusion: | | | | | |
| Pass. | | | | | |
| (Stamp) | | | | | |
| Tested by: <u>陈昭谔</u> Inspected by: <u>谢志琼</u> Approved by: <u>张</u> | | | | | |
| 2022 Y 9 M 1 D | | 2022 Y 9 M 1 D | | 2022 Y 9 M 1 D | |



Test Result

| No. | Test Item | Test Requirement | Test Result |
|-----|-----------------------|------------------|-------------|
| | | | 1# |
| 1 | Salt mist test | Test items 1 | Pass |
| 2 | Low temperature test | Test items 2 | Pass |
| 3 | IP6X Dust-proof test | Test items 3 | Pass |
| 4 | IPX5 Water-proof test | Test items 4 | Pass |



Test Result

Test items 1: Salt mist test

Environmental conditions:

Temperature: 25 °C, Humidity: 65%RH.

Reference standards:

IEC 60068-2-11:1981 Basic environmental testing procedures. Part 2 : Tests. Test Ka: Salt mist.

Sample state:

Sample in good condition before test.

Test conditions:

The test is carried out according to the standard, the salt concentration is $(5 \pm 1)\%$, the pH value is within 6.5~7.2 (at a temperature of $35 \pm 2^\circ\text{C}$), and the product is tested in the test box for 24 hours. After the end of the test, after the product is statically restored for (1-2) h, check the state of the sample.

Test acceptance requirements:

After the test, the surface of the inspection sample should be free from blistering, cracks, burrs and rust.

Test conclusion:

Pass.

Test Result

Test items 1: Salt mist test

Photo:





Test Result

Test items 2: Low temperature test

Environmental conditions:

Temperature: 25 °C, Humidity: 65%RH.

Reference standards:

IEC 60068-2-1 :2007 Environmental testing - Part 2-1: Tests - Test A: Cold.

Sample state:

Sample in good condition before test.

Test conditions:

Put the test sample into a test chamber at room temperature, then adjust the temperature to a severe level temperature (-40°C) that meets the relevant specifications, energize or load the test sample, and check the test sample to determine whether its function meets the relevant specifications. Require.

Test acceptance requirements:

The test temperature is -40°C, the sample should be powered on after being placed for 8 hours, and the test sample should work normally.

Test conclusion:

Pass.

Test Result

Test items 2: Low temperature test

Photo:





Test Result

Test items 3: IP6X Dust-proof test

Environmental conditions:

Temperature: 25 °C, Humidity: 63%RH.

Reference documents:

IEC 60529:1989+A1:1999+A2:2013Degrees of protection provided by enclosures (IP Code).

Test arrangement:

In strict accordance with the experimental requirements of the layout.

Sample state:

Sample in good condition before test.

Test conditions:

Dust-proof Test Against ingress of solid foreign objects:

The dust box was used for testing, talcum powder was filtered by metal square hole sieve, and the diameter of metal wire was 50 μ m. The mesh size is 75 μ m. The dosage of talcum powder is 2kg per cubic meter of test chamber volume, and the use times are not more than 20 times.

The sample is placed in the test chamber, and the pressure in the sample shell is kept below the atmospheric pressure by vacuum pump. The blowholes shall be attached to the holes specially set for the test

Dust-proof Test Against access to hazardous parts with :

The access probe of 1.0mm ø shall not penetrate.

Test acceptance requirements:

After the dust-proof test, Normal operation.

Test conclusion:

Pass.

Test Result

Test items 1: IP6X Dust-proof test

Photo:





Test Result

Test items 2: IPX5 Water-proof test

Environmental conditions:

Temperature: 25°C, Humidity: 63 %RH.

Reference documents:

IEC 60529:1989+A1:1999+A2:2013 Degrees of protection provided by enclosures (IP Code).

Test arrangement:

In strict accordance with the experimental requirements of the layout.

Sample state:

Sample in good condition before test.

Test conditions:

- a. Diameter of spout: 6.3mm;
- b. Flux: 12.5 ± 0.625 L/min;
- c. Hydraulic pressure: adjusted so as to have required flux.;
- d. Main stream: round stream with diameter of 120mm (away from the spout for 2.5m)
- e. Average test time: about 1min/m²;
- f. Total test time: 3min at least;
- g. Distance from the spout to the shell of EUT: 2.5~3m.

Test acceptance requirements:

After the water-proof test, no water founded in the EUT.

Test conclusion:

Pass.

Test Result

Test items 2: IPX5 Water-proof test

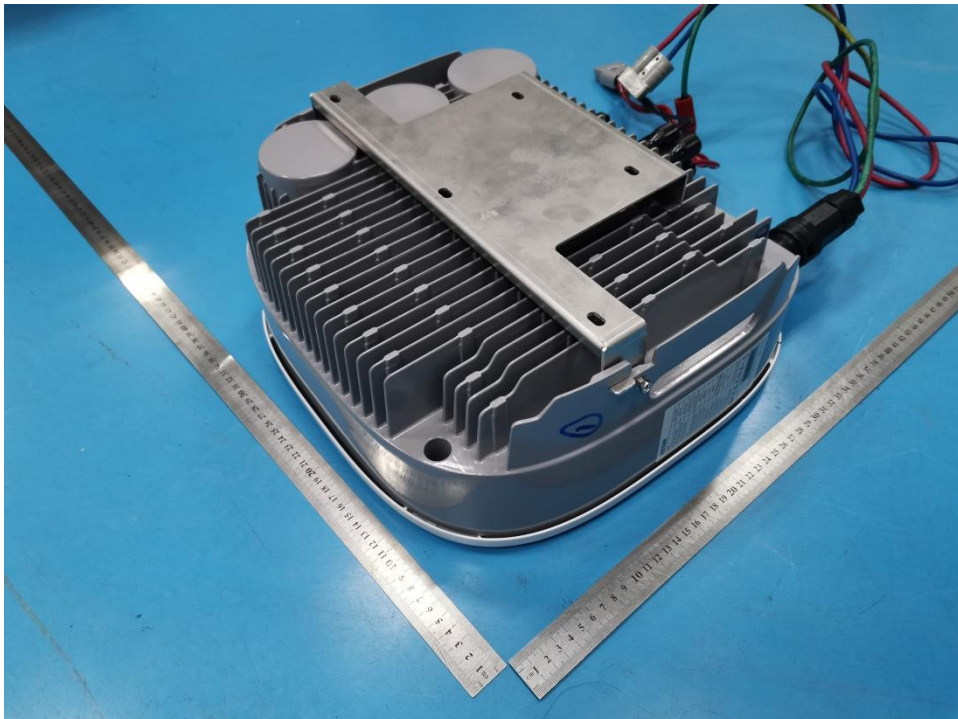
Photo:



Sample photos



1



2



List of Measurement Equipments Used

| No. | Description | Model No. | Serial No. | Cal. Due to |
|-----|-------------------------------------------------|---------------|------------|-------------|
| 1 | Water proof testing machine | KXT302 | A1109744 | 2023.4.18 |
| 2 | Walk-in dust test chamber | KXT1410 | A1109245 | 2023.5.19 |
| 3 | IP test suite | IP1-6 | A150802193 | 2022.12.19 |
| 4 | High and low temperature damp heat test chamber | SETH-Z-102U-V | A1107723 | 2023.6.19 |
| 5 | Compound Salt Spray Test Chamber | MHY-F2240 | A210503653 | 2023.6.1 |

Notes: The above instrument is within the metering test cycle.

*******END OF REPORT*******



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 is valid to the test samples if sampling by client.**
- 5. “☆” item to be outside the scope of authorized by CNAS.**
- 6. The report without the“CMA”stamp shall not have a certifying effect on the society.**
- 7. The test report shall not be reproduced except in full, without written approval of the laboratory.**
- 8. 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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