



**Guangdong Sushi Guangbo Testing
Technology Co., Ltd.**



中国认可
检测
TESTING
CNAS L12110

Test Report

No.: GDGT-H/R-2025-04015

Applicant: BSL NEW ENERGY TECHNOLOGY CO., LTD.

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Zhongkai District, Huizhou City, Guangdong, P.R. China.

Laboratory: Guangdong Sushi Guangbo Testing Technology Co., Ltd.

Laboratory Address: Building No.4/5, Modern Enterprise Accelerator, No.24
Industrial East Road, Songshan Lake, Dongguan, P.R. China.

Date of test: May.2, 2025 ~ May.3, 2025.





Terms and Conditions

1、The company is entrusted by the principal to undertake the organization and implementation of the test, and issue the test report according to the test basis and the requirements of the accreditation standards and the reasonable needs of the principal.

2、The test results presented in the report apply only to tested sample. The customer provides their own information, the sample, and the sample information. Thus, company assumes no responsibility for representativeness, authenticity of the sample and validity and accuracy of the information.

3、Any report having not been signed by the person who prepared, reviewer of authorized approver, or having been altered without authorization, or without both the Dedicated Report Seal and its across-page seal is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of company. Any copy of reports without the Dedicated Report Seal is deemed to be invalid.

4、Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The applicant assumes the responsibility of providing the revised version to any interested party who uses them.

5、The relevant content and effectiveness is subject to the electronic version of the original report which was only applied for. When an electronic report and a paper report are applied for at the same time, the electronic report is only a copy of the paper report, and the relevant content and effectiveness is subject to the paper report.

6、If there is any objection to the test report, it should be submitted to the testing unit within 15 days after receipt of the report, otherwise it will not be accepted after expiration.

7、Disclaimer

①When the customer knows that the test sample deviates from the specified conditions and insists on conducting the test, the company will describe the deviation of the test sample in a special font in the report, and explain that the deviation is the customer's requirement, and will not bear any consequences and responsibilities arising therefrom.

②The company is responsible for all information in the report, except information provided by customers. The use of data and related information provided by customers in the report will be marked as provided by customers, and the Company will not assume any consequences and responsibilities arising therefrom, including the validity of the results.



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Test Report

i. Product information

Product name: Energy Storage Converter;

Product model: ESS-GRID P50L.ESS-GRID P100L.ESS-GRID P150L.ESS-GRID P200L.ESS-GRID P250L.ESS-GRID P300L.ESS-GRID P350L.ESS-GRID P400L.ESS-GRID P450L.ESS-GRID P500L;

Product No.: GS202504015-001#(Laboratory numbering);

Product quantity: 1 pc;

Receipt of sample: Sent by the applicant;

Test sample arrived: Apr.03, 2025;

Sample description: At room temperature, the test sample was visually inspected and the appearance was intact.

Note: Test sample information is provided by the customer.

ii. Test results summary

Table 1 Test results summary

Test Items	Test Results	Decision result
Protection level -IP5X	After the test, the appearance of the sample is structurally sound, no damage; 1mm diameter test metal probe did not enter the shell under the 1N thrust; internal inspection without dust phenomenon.	Pass
Waterproof test -IPX5	The test samples have been completed in accordance with the conditions and, after testing, are structurally sound and undamaged in appearance. No water ingress during internal inspection.	Pass

Edited: zhao tao liu Reviewed: Chao Liu Approved: Meoling zhu

Issue Date: May.8, 2025



1 Atmospheric conditions of the test site

Temperature: 26°C~28°C.

Relative Humidity: 60%RH~64%RH.

2 Test site

Building No.4, Modern Enterprise Accelerator, No.24 Industrial East Road, Songshan Lake.

Building No.5, Modern Enterprise Accelerator, No.24 Industrial East Road, Songshan Lake.

3 Referenced regulations and test sequence

3.1 Referenced regulations

IEC 60529:1989+AMD1:1999+AMD2:2013 CSV/COR2:2015“Degrees of protection provided by enclosures (IP code)”;

The specific technical requirements shall be in accordance with the GDGT/CXJ008.02-2025-04015“Testing Application Form”.

3.2 Sequence of test

Table 2 Sequence of test

Test item	Product No.	Date of test	Test site
Protection level -IP5X	GS202504015-001	2025.05.02~2025.05.03	Building No.4
Waterproof test -IPX5	GS202504015-001	2025.05.03	Building No.4

4 Test personnel(s)

Table 3 Test personnel list

Test item	Test personnel
Protection level -IP5X	Zhaotao Liu
Waterproof test -IPX5	Zhaotao Liu

5 Test equipment(s)

Table 4 Test equipment list

Equipment name	Equipment model	Serial No.	Validity period
Dust chamber	YJ-IP56X	GDGS036	2025.09.13



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Digital display push-pull meter	HP-1K	GDGY007	2025.09.13
Test tool D probe	OJN-9408D	GDGY075	2026.02.12
Rain test equipment	YJ-IPX1-8	GDGS035	2025.06.20

6 Test item, conditions, processes, conclusions and figures

6.1 Protection level –IP5X

6.1.1 Test conditions

1. Prevent contact with dangerous parts: the metal probe with a diameter of 1mm applies 1N thrust and shall not enter the shell;
2. Prevent solid foreign bodies;
3. Test dust: talc powder;
4. Test time: 8 hours;
5. Qualification judgment: After the test, there is no dust inside the sample or the dust does not affect the normal operation or safety of the equipment;

6.1.2 Test processes

1. Visually check the appearance of the sample before the test;
2. Prevent access to dangerous parts for testing;
3. Put the sample into the dustproof test box, close the test box door, and conduct dustproof test according to 6.1.1;
4. After the test, check the appearance and interior of the sample and take photos and records

6.1.3 Test conclusions

1. After the test, the appearance of the sample is structurally sound, no damage; 1mm diameter test metal probe did not enter the shell under the 1N thrust; internal inspection without dust phenomenon.



6.1.4 Test figures



Fig 1 Before the test



Fig 2 After the test



Fig 3 Before the test



Fig 4 After the test



Fig 5 Before the test



Fig 6 After the test



Fig 7 Before the test



Fig 8 After the test



Fig 9 Testing of hazardous parts against contact



Fig 10 Testing of hazardous parts against contact



Fig 11 Fig 10 Testing of hazardous parts against contact

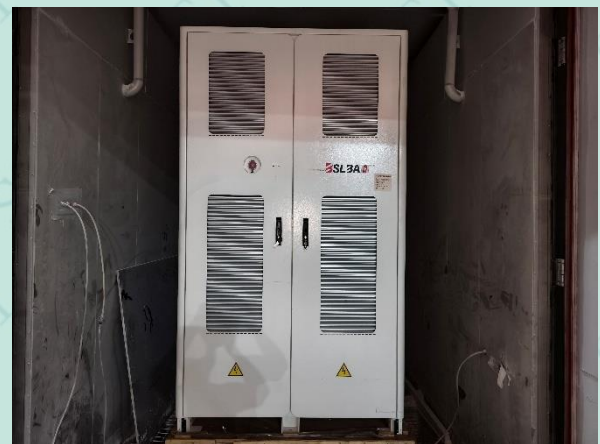


Fig 12 Sample placement



Fig 13 Internal inspection after test



Fig 14 Internal inspection after test



Fig 15 Internal inspection after test



Fig 16 Internal inspection after test

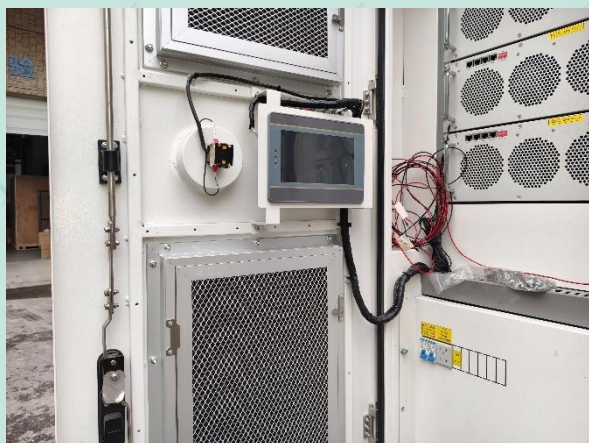


Fig 17 Internal inspection after test



Fig 18 Internal inspection after test

6.2 Waterproof test -IPX5

6.2.1 Test conditions

1. Inner diameter of nozzle: 6.3mm;
2. Water flow: 12.5L/min;
3. Distance from nozzle to sample surface: 2.5m~3m;



4. Test time: sample surface 1m²/min, at least 3min;

5. Qualified judgment: After the test, there is no water inside the sample or the water is not enough to affect the normal operation and safety of the equipment, that is, qualified.

6.2.2 Test processes

1. Inspect the appearance of the sample before the test;
2. Waterproof test -IPX5;
3. After the test, the sample shall be inspected externally and internally.

6.2.3 Test conclusions

1. The test samples have been completed in accordance with the conditions and, after testing, are structurally sound and undamaged in appearance. No water ingress during internal inspection.

6.2.4 Test figures



Fig 19 Before the test



Fig 20 After the test



Fig 21 Before the test



Fig 22 After the test



Fig 23 Before the test



Fig 24 After the test



Fig 25 Before the test



Fig 26 After the test



Fig 27 In test



Fig 28 In test



Fig 29 In test



Fig 30 In test



Fig 31 In test



Fig 32 Internal inspection after test



Fig 33 Internal inspection after test



Fig 34 Internal inspection after test

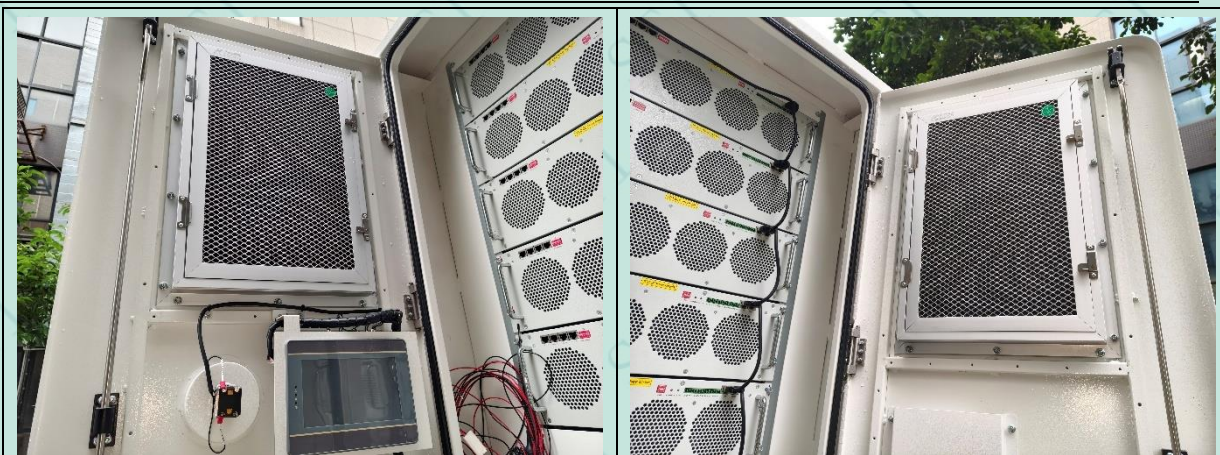


Fig 35 Internal inspection after test

Fig 36 Internal inspection after test

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