



深圳市计量质量检测研究院
Shenzhen Academy of Metrology & Quality Inspection

NETC 国家数字电子产品质量监督检验中心
National Digital Electronic Product Testing Center



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TEST REPORT

For

Battery Control Unit

Model/Spec.: GTX3000-H

Report No.: WT203105243

Test Laboratory : Shenzhen Academy of Metrology and Quality Inspection
National Digital Electronic Product Testing Center

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1. TEST SUMMARY

Table 1 Test overview

Test Items	Specimen status	Serial/Specimen No.	Test conclusion	Processed date
IP6X test	Unpackaged, non-operating	N/A	Pass	Dec.02,2020
IPX5 test	Unpackaged, non-operating	N/A	Pass	Dec.03,2020

2. AMBIENT CONDITION

Temperature: (23~24)°C
Relative Humidity: (52~54)%
Atmospheric Pressure: (100~101)kPa

3. INITIAL CHECK

Before the test, the specimen exhibited no appearance damage or structure damage.



4. IP6X TEST

4.1. Test Requirement

Test criteria: IEC 60529:2013

Specimen status: Unpackaged, non-operating

1) Degrees of protection against access to hazardous parts indicated by the first characteristic numeral

The first characteristic numeral 6

The test wire of 1.0mm Φ shall not penetrate and adequate clearance shall be kept.

2) Degrees of protection against solid foreign objects indicated by the first characteristic numeral

The first characteristic numeral 6

The enclosure under test is supported inside the test chamber and the pressure inside the enclosure is maintained below the surrounding atmospheric pressure by a vacuum pump.

The object of the test is to draw into the enclosure, by means of depression, a volume of air 80 times the volume of the sample enclosure tested without exceeding the extraction rate of 60 volumes per hour. In no event shall the depression exceed 2kPa.

The extraction rate is less than 40 volumes per hour, the test is continued until 80 volumes have been drawn through, or a period of 8h has elapsed.

4.2. Acceptance Criteria

- 1) The protection is satisfactory if adequate clearance is kept between the access probe and hazardous parts.
- 2) The protection is satisfactory if no deposit of dust inside the enclosure at the end of the test.



4.3. Test Result

- 1) Adequate clearance was kept between the access probe and hazardous parts.
- 2) After the test, the specimen exhibited no ingress of dust.

4.4. Test Conclusion

Pass

4.5. Photo



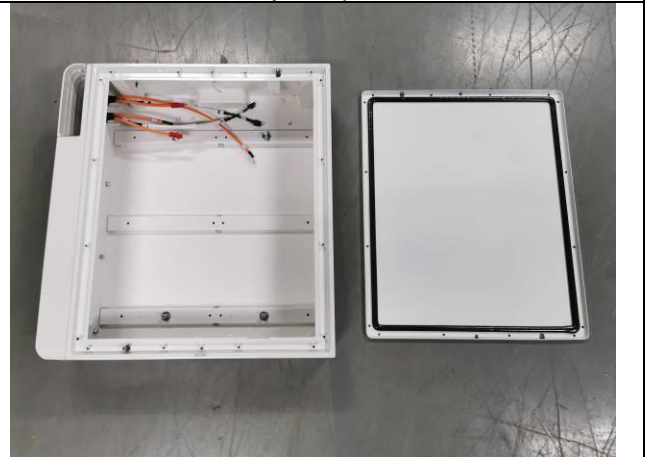
No.4-1 Inspection before test



No.4-2 IP6X test
(Protection against access to hazardous parts)



No.4-3 IP6X test
(Protection against solid foreign objects)



No.4-4 Inspection after IP6X test
(Protection against solid foreign objects)



5. IPX5 TEST

5.1. Test Requirement

Test criteria: IEC 60529:2013

Specimen status: Unpackaged, non-operating

Degrees of protection against water indicated by the second characteristic numeral

The second characteristic numeral 5

The test is made by spraying the enclosure from all practicable directions with a stream of water from a standard test nozzle.

The conditions to be observed are as follows:

- 1) Internal diameter of the nozzle: 6.3mm.
- 2) Delivery rate: 12.5l/min \pm 5%.
- 3) Water pressure: to be adjusted to achieve the specified delivery rate.
- 4) Core of the substantial stream: circle of approximately 40mm diameter at 2.5m distance from nozzle.
- 5) Distance from nozzle to enclosure surface: between 2.5m and 3m.
- 6) Test duration: 3 min.

5.2. Acceptance Criteria

After the test, if any water has entered, it shall not be sufficient to interfere with the correct operation of equipment or impair safety.

5.3. Test Result

After the test, the specimen exhibited no ingress of water.

5.4. Test Conclusion

Pass

5.5. Photo

<p>No.5-1 Inspection before test</p>	<p>No.5-2 IPX5 test (Protection against water)</p>
	<p>N/A</p>
<p>No.5-3 Inspection after IPX5 test (Protection against water)</p>	



APPENDIX A EQUIPMENT USED FOR TEST

Table 2 Test equipment used

No.	Equipment	Equipment ID	Type	Manufacturer	Due date
1	Dust chamber	SB8826	XH2000	Xie He	Dec.16,2020
2	Test probe	SB8826/02	1.0mm	Xie He	Sep.15,2021
3	Flowmeter	SB8081/11	LZB-25	Jing Te	Feb.25,2021
4	Scale	SB9193	5m	Eastern standard	Dec.30,2020
5	Timer	SB7536	PC396	Hui Bo	Nov.11,2021

(The end)