

Page 1 of 9

Test Report

Verified Code:757269

Report No.:H202308280713-03EN-G2

Customer: ProTech CO., LTD.

Address: No. 18, Baoying Road, Dawang High-Tech District, Zhaoqing, Guangdong

SINORA HARD SHELL CASE Sample Name:

SIN-04233-15BK Sample Model:

Receive

Sep.20,2023 Sample Date:

Test Date: Sep.21,2023 ~ oct.11,2023

Reference

According to ISO 20653:2013 IP67 Document:

Test Result: Meet the requirement

Li Xingchang Reviewed by Yuan Zong Zhang Huaming Prepared by Approved by

GRG METROLOGY & TEST GROUP CO., LTD.

Issued Date: 2023/11/29

GRG METROLOGY & TEST GROUP CO., LTD.

Address: No.163, Pingyun Road, West of Huangpu Avenue, Guangzhou, Guangdong, China Tel: (+86) 400-602-0999 FAX: (+86) 020-38698685 Web:http://www.grgtest.com







Report No.:H202308280713-03EN-G2 Page 2 Of 9

Statement

- 1. The report is invalid without "special seal for inspection and testing"; some copies are invalid; The report is invalid if it is altered or missing; The report is invalid without the signature of the person who prepared, reviewed and approved it.
- 2. The sample information is provided by the client and responsible for its authenticity; The content of the report is only valid for the samples sent this time.
- 3. When there are reports in both Chinese and English, the Chinese version will prevail when the language problems are inconsistent.
- 4. If there is any objection concerning the report, please inform us within 15 days from the date of receiving the report.
- 5. This report H202308280713-03EN-G2 is the modification of the report H202308280713-03EN-G1
 On the basis of the original report, modify the first page test basis from "ISO 20653:2013" to "ISO 20653:2013 IP67" to replace the report H202308280713-03EN-G1 The previous reports H202308280713-03EN and H202308280713-03EN-G1 are invalid.



Report No.:H202308280713-03EN-G2 Page 3 Of 9

| Test type | ☐ Commissioning Test☐ PV ☐ DV ☐ ECV | | | |
|--|---|----------|------------|--------------------------|
| Sample Source | ☑Commissioned units send sample ☐Others: | | | |
| Sample | Model | Quantity | Sample No. | Test No. |
| SINORA HARD SHELL CASE | SIN-04233-15BK | 1 pc | 1 | H202308280713-0003 |
| Sample Components and Accessories | Components: / Accessories: / | | | |
| Test with packaging or not | □Yes, Outer Packing ☑No | | | |
| Sample quality before test | ☐ Conformity Product ☐ Non-conformity Product ☐ Prototype ☐ Others | | | |
| Abnormal condition of sample before test | No Abnormalities | | | |
| Environmental requirements | Temperature: 15.0℃~35.0℃ Relative Humidity: 25%~75% Atmospheric pressure: 86kPa~106kPa | | | |
| Test Address | Shenzhen Laboratory: No. 10, Dafu Industrial Zone, Kukeng Community, Guanlan Street, Longhua District, Shenzhen | | | ukeng Community, Guanlan |
| | | | | |



Report No.:H202308280713-03EN-G2 Page 4 Of 9

1 IP6X

1.1 Test Condition

According to ISO 20653:2013.

1.1.1 Before the test: Check the appearance of sample.

1.1.2 Dustproof test:

- 1.1.2.1 Degrees of protection against access: use a metal probe with a diameter of 1.0mm to detect the shell of the tested product with a force of $1N \pm 0.1N$.
- 1.1.2.2 Degrees of protection against foreign objects: fix the tested product in the test box and carry out the test according to the items in Table 1-1.
 - 1.1.3 After the test: Check the appearance of the sample.

Table 1-1 Dustproof test conditions

| Test dust | Dosage of dust | Test time |
|----------------|--------------------|---|
| Arizona powder | 2kg/m ³ | 6s blowing dust, 15min standing, this is a cycle, running 20 cycles |

1.2 Sample Information

Sample information is shown in Table 1-2.

Table 1-2 Sample Information

| Sample Name | Sample Model | Quantity | Test No. |
|---------------------------|----------------|----------|--------------------|
| SINORA HARD SHELL CASE | SIN-04233-15BK | 1 pc | H202308280713-0003 |

1.3 Test Requirements

According to ISO 20653:2013.

The rigid test wire (diameter 1.0 mm)shall not penetrate, and dust shall not penetrate.



Report No.:H202308280713-03EN-G2 Page 5 Of 9

1.4 Test Result

The test result are shown in Table 1-3.

Table 1-3 Test Result

| Test No. | Test Results | Conclusion |
|--------------------|--|----------------------|
| H202308280713-0003 | The 1mm metal probe did not enter the sample shell, and no dust entered the inside of the subject after the test | Meet the requirement |

1.5 Test Photos





Fig.1-1 Sample appearance inspection before test

Fig.1-2 Sample appearance inspection after test



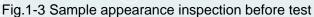




Fig.1-4 Sample unpacking inspection after test



Report No.:H202308280713-03EN-G2

Page 6 Of 9



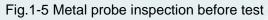




Fig.1-6 Test sample placement

----- The following blanks -----



Report No.:H202308280713-03EN-G2 Page 7 Of 9

2 IPX7

2.1 Test Condition

According to ISO 20653:2013.

- 2.1.1 Before the test: Check the appearance of sample.
- 2.1.2 Waterproof test: Fix the sample in the dipping tank and test according to the conditions listed in Table 2-1.
 - 2.1.3 After the test: Check the appearance of the sample.

Table 2-1 Waterproof test conditions

| Distance between the highest point of the box body and the water surface | Test time |
|--|------------|
| 1000mm | Soak 30min |

2.2 Sample Information

Sample information is shown in Table 2-2.

Table 2-2 Sample Information

| Sample Name | Sample Model | Quantity | Test No. |
|---------------------------|----------------|----------|--------------------|
| SINORA HARD SHELL CASE | SIN-04233-15BK | 1 pc | H202308280713-0003 |

2.3 Test Requirements

According to ISO 20653:2013.

Water shall not penetrate in a quantity causing harmful effects or impair performance if the enclosure is immersed in water tempo-rarily under specified pressure and time conditions.

2.4 Test Result

The test result are shown in Table 2-3.



Report No.:H202308280713-03EN-G2

Page 8 Of 9

Table 2-3 Test Result

| Test No. | Test Results | Conclusion |
|--------------------|--|----------------------|
| H202308280713-0003 | There is no water in the sample after the test | Meet the requirement |

2.5 Test Photos





Fig.2-1 Sample appearance inspection before test

Fig.2-2 Sample appearance inspection after test



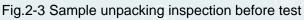
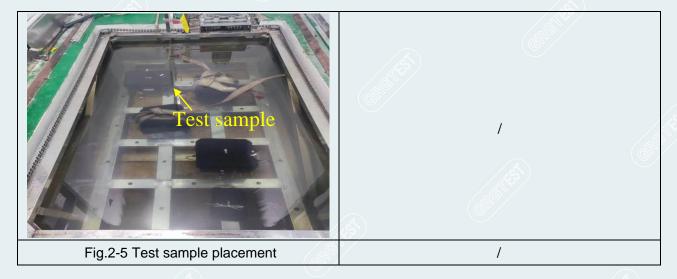




Fig.2-4 Sample unpacking inspection after test



Report No.:H202308280713-03EN-G2 Page 9 Of 9



3 Test Instrument & Equipment

| List of instruments for testing equipment | | | | | |
|---|-------------------------|-------------------|----------|---------------|------------------------|
| No. | Testing item | Equipment | Туре | Serial No. | Calibration valid date |
| 1 | 1 Dustproof test (IP6X) | Dust test chamber | GT1321 | GT20170703001 | 2023-01-07~2024-01-06 |
| | | IP4X test sonde | CX-T4D | CX1807237 | 2023-03-23~2024-03-22 |
| 2 | Waterproof test (IDV7) | Water tank | / | / | , |
| | Waterproof test (IPX7) | Steel rule | 0~1000mm | 2482515 | 2023-03-22~2024-03-21 |

----- End of Report -----