製-購統-23-018B
2023

Attn.:_____

HIROSE ELECTRIC CO., LTD.
2-6-3 Nakagawa Chuoh, Tsuzuki-ku, Yokohama, JAPAN

Notice regarding addition of production area of resin material supplier

We are writing today to inform you that we will make some changes as shown in the subject for the reason described below.
We will announce them in advance.

1	Products affected	Please refer to the attachment 1 for detailed product names.
2	Replacement product	There is no change in product code and product name.
3	Changes	We will add the production area of the resin material supplier. Current production area: Taiwan Place of production to be added: Chaina *The material used is PBT of the same part number manufactured by Changchun. Since this product is UL/C-UL certified, it is also certified for products made in China of resin materials. Please note that this material has different yellow cards depending on its production area, so if you would like to request a material certificate or yellow card for an additional material, please contact our sales representative.
4	Reason for change	To ensure the stability of material supply.
5	When to start using materials from the production area to be added	After July 1, 2024
6	Regarding test data	Please refer to the attachment 2 for detailed product names.

* There are no changes to the delivery specifications and other drawings for the additional products from the resin material supplier in this case.
* There is no difference in product performance between the current materials made in Taiwan and the additional materials made in China.

If you should have any questions, please feel free to contact a Hirose business representative.
Your understanding and cooperation are highly appreciated.

■Product list 製-購統-23-018B_Notice regarding addition of production area of resin material supplier

No.	Product Code	Product Name	Remarks	
			Current production area	Place of production to be added
1	544-1003-0-00	DF62W-2EP-2.2C	Taiwan	China
2	544-1019-0-00	DF62W-2EP-2.2C-PA		
3	544-1002-7-00	DF62W-2S-2.2C		
4	544-1002-7-11	DF62W-2S-2.2C(11)		
5	544-1005-5-00	DF62W-3EP-2.2C		
6	544-1021-0-20	DF62W-3P-2.2DSA(20)		
7	544-1004-2-00	DF62W-3S-2.2C		
8	544-1004-2-11	DF62W-3S-2.2C(11)		
9	544-1007-0-00	DF62W-4EP-2.2C		
10	544-1006-8-00	DF62W-4S-2.2C		
11	544-1006-8-11	DF62W-4S-2.2C(11)		
12	544-1009-6-00	DF62W-6EP-2.2C		
13	544-1009-6-10	DF62W-6EP-2.2C(10)		
14	544-1008-3-00	DF62W-6S-2.2C		
15	544-1008-3-11	DF62W-6S-2.2C(11)		
16	544-1011-8-00	DF62W-9EP-2.2C		
17	544-1010-5-00	DF62W-9S-2.2C		
18	544-1010-5-11	DF62W-9S-2.2C(11)		
19	544-0094-0-00	DF62WA-6EP-2.2C		
20	544-0095-0-11	DF62WA-6S-2.2C(11)		
21	544-1030-0-00	DF62WA-9S-2.2C		
22	544-1036-0-00	DF62WB-9EP-2.2C		
23	544-1031-0-00	DF62WB-9S-2.2C		
24	544-1047-0-00	DF62WC-2EP-2.2C		
25	544-1046-0-00	DF62WC-2S-2.2C		
26	544-1053-0-00	DF62WC-3EP-2.2C		
27	544-1054-0-00	DF62WC-3S-2.2C		
28	544-1052-0-00	DF62WC-4EP-2.2C		
29	544-1051-0-00	DF62WC-4S-2.2C		
30	544-1058-0-00	DF62WC-6EP-2.2C		
31	544-1057-0-00	DF62WC-6S-2.2C		
32	544-1037-0-00	DF62WC-9EP-2.2C		
33	544-1032-0-00	DF62WC-9S-2.2C		
34	544-0096-0-00	DF62WD-2EP-2.2C		
35	544-0097-0-00	DF62WD-3EP-2.2C		
36	544-1033-0-00	DF62WD-9S-2.2C		
37	544-1099-0-00	DF62WDA-6S-2.2C		
38	544-1041-0-00	DF62WE-9EP-2.2C		
39	544-1040-0-00	DF62WE-9S-2.2C		
40	544-1050-0-20	DF62WZ-9P-2.2DSA(20)		
41	544-1050-0-21	DF62WZ-9P-2.2DSA(21)		
42	544-1050-0-50	DF62WZ-9P-2.2DSA(50)		
43	680-0605-9-00	DF63W-2EP-3.96C		
44	680-0613-7-00	DF63W-2S-3.96C		
45	680-0606-1-00	DF63W-3EP-3.96C		
46	680-0614-0-00	DF63W-3S-3.96C		
47	680-0607-4-00	DF63W-4EP-3.96C		
48	680-0615-2-00	DF63W-4S-3.96C		
49	680-0609-0-00	DF63WA-2EP-3.96C		
50	680-0617-8-00	DF63WA-2S-3.96C		
51	680-0610-9-00	DF63WA-3EP-3.96C		
52	680-0618-0-00	DF63WA-3S-3.96C		
53	680-0611-1-00	DF63WA-4EP-3.96C		
54	680-0619-3-00	DF63WA-4S-3.96C		
55	680-0641-0-00	DF63WA-5EP-3.96C		
56	680-0640-0-00	DF63WA-5S-3.96C		
57	680-0653-0-00	DF63WA-6EP-3.96C		
58	680-0652-0-00	DF63WA-6S-3.96C		

Attachment 2

TR544F-20322

COMPARISON TEST CHANG CHUN PLASTICS OF DF62W-9PIN

APPROVED SJ.OKAMURA
CHECKED HT.SATO
CHARGED KI.SUGAWARA

HIROSE ELECTRIC CO.,LTD.

[1] Objective:
To compare and confirm the performance quality of the existing Products and additional materials of DF62W-9pin.

[2] Specimens:
DF62W-9EP-2.2C : Existing materials/CHANG CHUN PLASTICS, made in Taiwan
DF62W-9S-2.2C : Existing materials/CHANG CHUN PLASTICS, made in Taiwan
Note 1) Hereafter, the test sample name will be referred to as [Taiwanese material].

DF62W-9EP-2.2C : Additional material/CHANG CHUN PLASTICS, made in China
DF62W-9S-2.2C : Additional material/CHANG CHUN PLASTICS, made in China
Note 2) Hereafter, the test sample name will be referred to as [Chinese material].

［Contact］
DF62W-EP2226PCF
DF62W-2226SCF

Wire used: UL1007 AWM AWG22

[3] Test period:
From: 2023-7-20
To: 2023-7-21

[4] Test temperature:
18 °C to 28 °C

[5] Test humidity:
25 % to 75 %

[6] Test item, Number of specimens, Page No.

Test item No.	Test item/ (Applicable standard)	Group A	Group B	Group C	Number of Specimens	Page No.
1	Appearance, Construction	○	○	○	12 sets each	6
2	Insulation resistance	○	○		8 sets each	7
3	Voltage proof	○	○		8 sets each	8
4	Air pressure withstanding			○	4 sets each	9
5	Mechanical operation, 30 times			○	4 sets each	11
6	Change of temperature	○			4 sets each	12
7	Dry heat		○		4 sets each	13
8	Cold	○			4 sets each	14
9	Damp heat	○			4 sets each	15

Note 1) “Each" in the number of samples means that the test is performed on two types of test samples as described on page 2.

Table for each test measurement item

Test item No.	Test item	(1)	(2)	(3)	(4)
9	Mechanical operation, 30 times	○			○
10	Change of temperature	○	○	○	
11	Dry heat	○	○	○	
12	Cold	○	○	○	
13	Damp heat	○	○	○	

Remarks: (1) Appearance, Construction
(2) Insulation resistance
(3) Voltage proof
(4) Air pressure withstanding

[7] Test results

See the page which describes each test item.

See the pages shown below for result data.

Insulation resistance, result data See page 5.

Insulation resistance

Group A

Taiwanese material Unit: x 10^4 MΩ

	Initial	Change of temperature	Dry heat	Cold
Max	168	201	87	114
Min	102	53	41	41

Chinese material Unit: x 10^4 MΩ

	Initial	Change of temperature	Dry heat	Cold
Max	141	154	82	111
Min	56	61	48	53

Group B

Taiwanese material Unit: x 10^4 MΩ

	Initial	Damp heat
Max	160	115
Min	94	58

Chinese material Unit: x 10^4 MΩ

	Initial	Damp heat
Max	154	138
Min	61	64

1. Appearance, Construction

1.1 Requirements

Appearance, Construction:	No breakage, crack or looseness on the component.
Intermateability:	No defect in mating.

1.2 Test method

Appearance, Construction:	Check visually with a magnifying glass for presence of breakage, crack or looseness on the component.
Intermateability:	Check for presence of any defect when specimens are mated with the applicable connector.

1.3 Test results

Appearance, Construction:

Taiwanese material : No breakage, crack or looseness on the component was found.

Chinese material : No breakage, crack or looseness on the component was found.

Intermateability:

Taiwanese material : No defect in mating was found.

Chinese material : No defect in mating was found.

2. Insulation resistance

2.1 Requirements

1000 MΩ or more.

2.2 Test method

The measurement is conducted according to the conditions specified in the table below:

Test voltage	500 V d.c.
Duration	For 1 min ± 5 s. However, if the results are verified as the required value or more during the testing, the measurement can be terminated.

Measuring point: Between adjacent contacts

Mated/Unmated: Mated

2.3 Test equipment

Test equipment	Model	Manufacturer
Super Megohm-meter	HP3530	HOPETECH

2.4 Test results

See page 4 for result data.

3. Voltage proof

3.1 Requirements

No flashover or dielectric breakdown.

3.2 Test method

Voltage proof is checked according to the conditions specified in the table below:

Test voltage	650 V a.c.
Duration	For 1 min ± 5 s

Imposing method: Test voltage is raised in a rate of 500 V/s or less until it reaches the required value.

Leak current: Judged flashover or dielectric breakdown at 2 mA

Measuring point: Between adjacent contacts

Mated/Unmated: Mated

3.3 Test equipment

Test equipment	Model	Manufacturer
Voltage proof tester	TOS5050A	Kikusui Electronics

3.4 Test results

Taiwanese material : No flashover or dielectric breakdown was found.

Chinese material : No flashover or dielectric breakdown was found.

4. Air pressure withstanding

4.1 Requirements

Check for a presence of air bubbles from inside the connector.

4.2 Test method

After soak in water in mated condition, apply air pressure in the condition shown in table below and check visually the presence of leakage of air bubbles.

Test condition

Air pressure	17.6 kPa
Duration	For 30 s

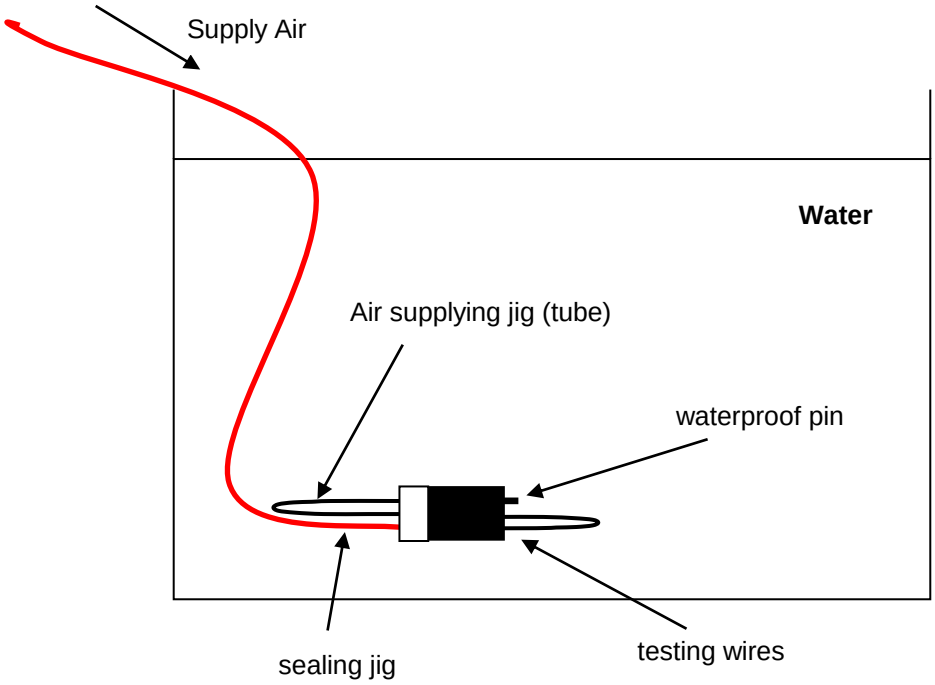

Figure: Testing method

Note) In a condition shown in figure above, 2 sets are tested at the same time.

4.3 Test equipment

Test equipment	Model	Manufacturer
Water-proof testing apparatus	---	Hirose
Air pressure meter (40kPa)	---	Hirose

4.4 Test results

Taiwanese material : No air bubbles were found.

Chinese material : No air bubbles were found.

5. Mechanical operation, 30 times

5.1 Requirements

Appearance, Construction: No breakage, crack or looseness on the component.

Air pressure withstanding: Check for a presence of air bubbles.

5.2 Test method

30 times of insertions and extractions are conducted at a rate of 10 times/min or less.

5.3 Test results

Appearance, Construction:

Taiwanese material : No breakage, crack or looseness on the component was found.

Chinese material : No breakage, crack or looseness on the component was found.

Air pressure withstanding:

Taiwanese material : No air bubbles were found.

Chinese material : No air bubbles were found.

6. Change of temperature

6.1 Requirements

Appearance, Construction: No breakage, crack or looseness on the component.
Insulation resistance 1000 MΩ or more.
Voltage proof: Confirmation measurement.

6.2 Test method

The test is conducted according to the conditions specified in the table below:

Step	1	2
Temperature (°C)	-55 ± 3	85 ± 2
Duration (min)	30	30

Note) Chamber transfer time is 2 min to 3 min.

Number of cycles: 5 cycles are conducted with the above condition as 1 cycle.
Mated/Unmated: Mated
Recovery: After completion of the test, let the specimens rest in ambient temperature for 1 h to 2 h.

6.3 Test equipment

Test equipment	Model	Manufacturer
Constant low temperature chamber	GLT2-A618	Guangxian Instruments

6.4 Test results

Appearance, Construction:
Taiwanese material : No breakage, crack or looseness on the component was found.
Chinese material : No breakage, crack or looseness on the component was found.
Insulation resistance:See page 4 for result data.
Voltage proof:
Taiwanese material : No flashover or dielectric breakdown was found.
Chinese material : No flashover or dielectric breakdown was found.

7. Dry heat

7.1 Requirements

Appearance, Construction: No breakage, crack or looseness on the component.
Insulation resistance: Confirmation measurement.
Voltage proof: Confirmation measurement.

7.2 Test method

The test is conducted according to the conditions specified in the table below:

Temperature	105 °C ± 2 °C
Duration	96 h

Mated/Unmated: Mated.
Recovery: After completion of the test, let the specimens rest in ambient temperature for 1 h to 2 h.

7.3 Test equipment

Test equipment	Model	Manufacturer
Constant high temperature chamber	DHG-9075A	Shanghai Yiheng Technology

7.4 Test results

Appearance, Construction:
Taiwanese material : No breakage, crack or looseness on the component was found.
Chinese material : No breakage, crack or looseness on the component was found.
Insulation resistance:See page 4 for result data.
Voltage proof:
Taiwanese material : No flashover or dielectric breakdown was found.
Chinese material : No flashover or dielectric breakdown was found.

8. Cold

8.1 Requirements

Appearance, Construction: No breakage, crack or looseness on the component.
Insulation resistance: Confirmation measurement.
Voltage proof: Confirmation measurement.

8.2 Test method

The test is conducted according to the conditions specified in the table below:

Temperature	-55 °C ± 3 °C
Duration	96 h

Mated/Unmated: Mated.
Recovery: After completion of the test, let the specimens rest in ambient temperature for 1 h to 2 h.

8.3 Test equipment

Test equipment	Model	Manufacturer
Constant low temperature chamber	SH-242	Espec

8.4 Test results

Appearance, Construction:
Taiwanese material : No breakage, crack or looseness on the component was found.
Chinese material : No breakage, crack or looseness on the component was found.
Insulation resistance:See page 4 for result data.
Voltage proof:
Taiwanese material : No flashover or dielectric breakdown was found.
Chinese material : No flashover or dielectric breakdown was found.

9. Damp heat

9.1 Requirements

Appearance, Construction: No breakage, crack or looseness on the component.
Insulation resistance: 1000 MΩ or more.
Voltage proof: Confirmation measurement.

9.2 Test method

The test is conducted according to the conditions specified in the table below:

Temperature	40 °C ± 2 °C
Humidity	90 % to 95 %
Duration	96 h

Mated/Unmated: Mated.
Recovery: After completion of the test, let the specimens rest in ambient temperature for 1 h to 2 h.

9.3 Test equipment

Test equipment	Model	Manufacturer
Constant temperature and humidity chamber	LH-113	Espec

9.4 Test results

Appearance, Construction:
Taiwanese material : No breakage, crack or looseness on the component was found.
Chinese material : No breakage, crack or looseness on the component was found.
Insulation resistance:See page 4 for result data.
Voltage proof:
Taiwanese material : No flashover or dielectric breakdown was found.
Chinese material : No flashover or dielectric breakdown was found.

TR680F-21089
#1

COMPARISON TEST CHANG CHUN PLASTICS OF DF63WA-6PIN

APPROVED	SJ.OKAMURA
CHECKED	HT.SATO
CHARGED	KI.SUGAWARA

HIROSE ELECTRIC CO.,LTD.

[1] Objective:
To compare and confirm the performance quality of the existing Products and additional materials of DF63WA-6pin.

[2] Specimens:
DF63WA-6EP-3.96C : Existing materials/CHANG CHUN PLASTICS, made in Taiwan
DF63WA-6S-3.96C : Existing materials/CHANG CHUN PLASTICS, made in Taiwan
Note 1) Hereafter, the test sample name will be referred to as [Taiwanese material].

DF63WA-6EP-3.96C : Additional material/CHANG CHUN PLASTICS, made in China
DF63WA-6S-3.96C : Additional material/CHANG CHUN PLASTICS, made in China
Note 2) Hereafter, the test sample name will be referred to as [Chinese material].

［Contact］
DF63-1618PCF
DF63W-1618SCF

Wire used: UL1007 AWM AWG18

[3] Test period:
From: 2023-7-27
To: 2023-7-28

[4] Test temperature:
18 °C to 28 °C

[5] Test humidity:
25 % to 75 %

[6] Test item, Number of specimens, Page No.

Test item No.	Test item/ (Applicable standard)	Group A	Group B	Group C	Number of Specimens	Page No.
1	Appearance, Construction	○	○	○	12 sets each	6
2	Insulation resistance	○	○		8 sets each	7
3	Voltage proof	○	○		8 sets each	8
4	Air pressure withstanding			○	4 sets each	9
5	Mechanical operation, 30 times			○	4 sets each	11
6	Change of temperature	○			4 sets each	12
7	Dry heat		○		4 sets each	13
8	Cold	○			4 sets each	14
9	Damp heat	○			4 sets each	15

Note 1) “Each" in the number of samples means that the test is performed on two types of test samples as described on page 2.

Table for each test measurement item

Test item No.	Test item	(1)	(2)	(3)	(4)
9	Mechanical operation, 30 times	○			○
10	Change of temperature	○	○	○	
11	Dry heat	○	○	○	
12	Cold	○	○	○	
13	Damp heat	○	○	○	

Remarks: (1) Appearance, Construction
(2) Insulation resistance
(3) Voltage proof
(4) Air pressure withstanding

[7] Test results

See the page which describes each test item.

See the pages shown below for result data.

Insulation resistance, result data See page 5.

Insulation resistance

Group A

Taiwanese material Unit: X 10^4 MΩ

	Initial	Change of temperature	Dry heat	Cold
Max	131	101	184	127
Min	32	51	51	65

Chinese material Unit: X 10^4 MΩ

	Initial	Change of temperature	Dry heat	Cold
Max	97	126	149	123
Min	63	53	25	47

Group B

Taiwanese material Unit: X 10^4 MΩ

	Initial	Damp heat
Max	100	117
Min	37	40

Chinese material Unit: X 10^4 MΩ

	Initial	Damp heat
Max	96	182
Min	26	73

1. Appearance, Construction

1.1 Requirements

Appearance, Construction:	No breakage, crack or looseness on the component.
Intermateability:	No defect in mating.

1.2 Test method

Appearance, Construction:	Check visually with a magnifying glass for presence of breakage, crack or looseness on the component.
Intermateability:	Check for presence of any defect when specimens are mated with the applicable connector.

1.3 Test results

Appearance, Construction:

Taiwanese material : No breakage, crack or looseness on the component was found.

Chinese material : No breakage, crack or looseness on the component was found.

Intermateability:

Taiwanese material : No defect in mating was found.

Chinese material : No defect in mating was found.

2. Insulation resistance

2.1 Requirements

1000 MΩ or more.

2.2 Test method

The measurement is conducted according to the conditions specified in the table below:

Test voltage	500 V d.c.
Duration	For 1 min ± 5 s. However, if the results are verified as the required value or more during the testing, the measurement can be terminated.

Measuring point: Between adjacent contacts

Mated/Unmated: Mated

2.3 Test equipment

Test equipment	Model	Manufacturer
Super Megohm-meter	HP3530	HOPETECH

2.4 Test results

See page 4 for result data.

3. Voltage proof

3.1 Requirements

No flashover or dielectric breakdown.

3.2 Test method

Voltage proof is checked according to the conditions specified in the table below:

Test voltage	1500 V a.c.
Duration	For 1 min ± 5 s

Imposing method: Test voltage is raised in a rate of 500 V/s or less until it reaches the required value.

Leak current: Judged flashover or dielectric breakdown at 2 mA

Measuring point: Between adjacent contacts

Mated/Unmated: Mated

3.3 Test equipment

Test equipment	Model	Manufacturer
Voltage proof tester	TOS5050A	Kikusui Electronics

3.4 Test results

Taiwanese material : No flashover or dielectric breakdown was found.

Chinese material : No flashover or dielectric breakdown was found.

4. Air pressure withstanding

4.1 Requirements

Check for a presence of air bubbles from inside the connector.

4.2 Test method

After soak in water in mated condition, apply air pressure in the condition shown in table below and check visually the presence of leakage of air bubbles.

Test condition

Air pressure	17.6 kPa
Duration	For 30 s

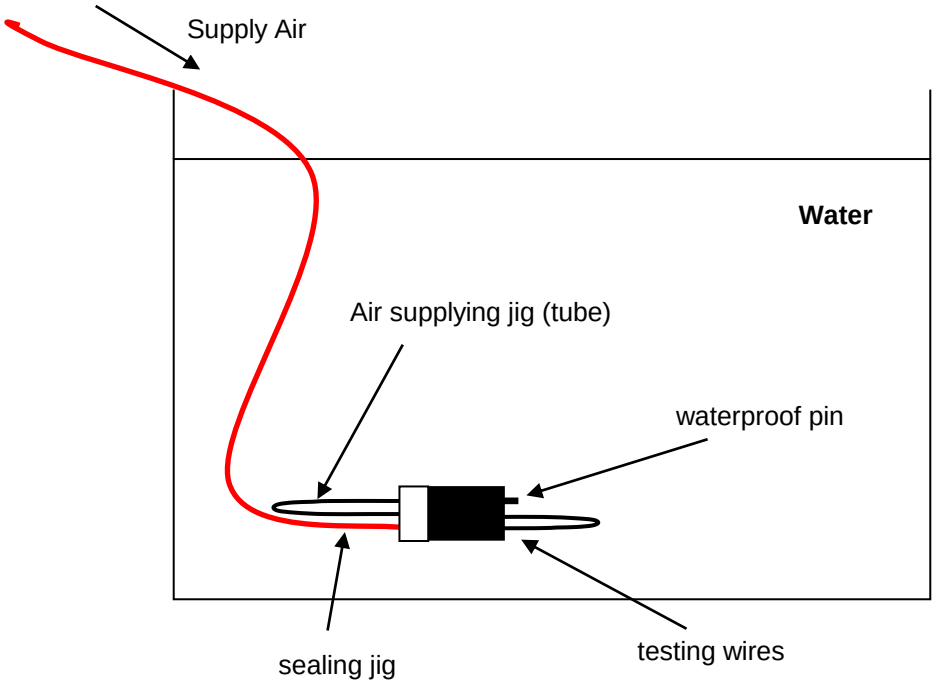

Figure: Testing method

Note) In a condition shown in figure above, 2 sets are tested at the same time.

4.3 Test equipment

Test equipment	Model	Manufacturer
Water-proof testing apparatus	---	Hirose
Air pressure meter (40kPa)	---	Hirose

4.4 Test results

Taiwanese material : No air bubbles were found.

Chinese material : No air bubbles were found.

5. Mechanical operation, 30 times

5.1 Requirements

Appearance, Construction: No breakage, crack or looseness on the component.

Air pressure withstanding: Check for a presence of air bubbles.

5.2 Test method

30 times of insertions and extractions are conducted at a rate of 10 times/min or less.

5.3 Test results

Appearance, Construction:

Taiwanese material : No breakage, crack or looseness on the component was found.

Chinese material : No breakage, crack or looseness on the component was found.

Air pressure withstanding:

Taiwanese material : No air bubbles were found.

Chinese material : No air bubbles were found.

6. Change of temperature

6.1 Requirements

Appearance, Construction: No breakage, crack or looseness on the component.
Insulation resistance: 1000 MΩ or more.
Voltage proof: Confirmation measurement.

6.2 Test method

The test is conducted according to the conditions specified in the table below:

Step	1	2
Temperature (°C)	-55 ± 3	105 ± 2
Duration (min)	30	30

Note) Chamber transfer time is 2 min to 3 min.

Number of cycles: 5 cycles are conducted with the above condition as 1 cycle.
Mated/Unmated: Mated
Recovery: After completion of the test, let the specimens rest in ambient temperature for 1 h to 2 h.

6.3 Test equipment

Test equipment	Model	Manufacturer
Constant low temperature chamber	GLT2-A618	Guangxian Instruments

6.4 Test results

Appearance, Construction:
Taiwanese material : No breakage, crack or looseness on the component was found.
Chinese material : No breakage, crack or looseness on the component was found.
Insulation resistance:See page 4 for result data.
Voltage proof:
Taiwanese material : No flashover or dielectric breakdown was found.
Chinese material : No flashover or dielectric breakdown was found.

7. Dry heat

7.1 Requirements

Appearance, Construction: No breakage, crack or looseness on the component.
Insulation resistance: Confirmation measurement.
Voltage proof: Confirmation measurement.

7.2 Test method

The test is conducted according to the conditions specified in the table below:

Temperature	105 °C ± 2 °C
Duration	96 h

Mated/Unmated: Mated.
Recovery: After completion of the test, let the specimens rest in ambient temperature for 1 h to 2 h.

7.3 Test equipment

Test equipment	Model	Manufacturer
Constant high temperature chamber	DHG-9075A	Shanghai Yiheng Technology

7.4 Test results

Appearance, Construction:
Taiwanese material : No breakage, crack or looseness on the component was found.
Chinese material : No breakage, crack or looseness on the component was found.
Insulation resistance:See page 4 for result data.
Voltage proof:
Taiwanese material : No flashover or dielectric breakdown was found.
Chinese material : No flashover or dielectric breakdown was found.

8. Cold

8.1 Requirements

Appearance, Construction: No breakage, crack or looseness on the component.
Insulation resistance: Confirmation measurement.
Voltage proof: Confirmation measurement.

8.2 Test method

The test is conducted according to the conditions specified in the table below:

Temperature	-55 °C ± 3 °C
Duration	96 h

Mated/Unmated: Mated.
Recovery: After completion of the test, let the specimens rest in ambient temperature for 1 h to 2 h.

8.3 Test equipment

Test equipment	Model	Manufacturer
Constant low temperature chamber	SH-242	Espec

8.4 Test results

Appearance, Construction:
Taiwanese material : No breakage, crack or looseness on the component was found.
Chinese material : No breakage, crack or looseness on the component was found.
Insulation resistance:See page 4 for result data.
Voltage proof:
Taiwanese material : No flashover or dielectric breakdown was found.
Chinese material : No flashover or dielectric breakdown was found.

9. Damp heat

9.1 Requirements

Appearance, Construction: No breakage, crack or looseness on the component.
Insulation resistance: 500 MΩ or more.
Voltage proof: Confirmation measurement.

9.2 Test method

The test is conducted according to the conditions specified in the table below:

Temperature	40 °C ± 2 °C
Humidity	90 % to 95 %
Duration	96 h

Mated/Unmated: Mated.
Recovery: After completion of the test, let the specimens rest in ambient temperature for 1 h to 2 h.

9.3 Test equipment

Test equipment	Model	Manufacturer
Constant temperature and humidity chamber	LH-113	Espec

9.4 Test results

Appearance, Construction:
Taiwanese material : No breakage, crack or looseness on the component was found.
Chinese material : No breakage, crack or looseness on the component was found.
Insulation resistance:See page 4 for result data.
Voltage proof:
Taiwanese material : No flashover or dielectric breakdown was found.
Chinese material : No flashover or dielectric breakdown was found.