



Test Report Product Validation

Braganca-Paulista Electrical Components Test Laboratory
RUA AMPERE 304 Dist. Indl I BRAGANCA PAULISTA SAO PAULO BRAZIL 12929-570

Report Title: BUSBAR GMI700 MY17
Report Number: RL150025
Revision: O
Date Issued: 20 jan 2015

Execution: Diogo Rojas
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Requestor: Natanael Santos
Phone: 11 3404-6225
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Disposition of Samples: Return to Customer
Customer: GM

List of Part Numbers: 2819058-1

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Scope/Abstract and Conclusions

Purpose

J-case (Cu) x TAB busbar (Ag/Ni) interface validation.

Summary

Informative tests.

1. RESULTS

Test Sequence/Environment	Requirements	Results						
Group 1								
Voltage drop	Informative	<table border="1"> <thead> <tr> <th>Sample</th> <th>Initial [mΩ]</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0,182</td> </tr> <tr> <td>2</td> <td>0,188</td> </tr> </tbody> </table>	Sample	Initial [mΩ]	1	0,182	2	0,188
Sample	Initial [mΩ]							
1	0,182							
2	0,188							
Thermal shock (GMW 3191/2012 item 4.4.2)	Only conditioning	Not applied.						
Temperature and humidity (GMW 3191/2012 item 4.4.4)	Only conditioning	Not applied.						
Thermal aging (GMW 3191/2012 item 4.4.1)	Only conditioning	Not applied.						
Voltage drop	Informative	<table border="1"> <thead> <tr> <th>Sample</th> <th>Final [mΩ]</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0,182</td> </tr> <tr> <td>2</td> <td>0,180</td> </tr> </tbody> </table>	Sample	Final [mΩ]	1	0,182	2	0,180
Sample	Final [mΩ]							
1	0,182							
2	0,180							

2. SAMPLE & WIRE DESCRIPTION

The Certification of Conformance (C of C), submitted with the test request, lacked the necessary information to verify the samples tested. Therefore the Test Lab cannot verify that the samples have been produced, inspected, and accepted as conforming to product drawing requirements, and made using the same core manufacturing processes and technologies as production or parts.

2.1. Group / Samples

Group	Part Number	Rev.	Date Code	Sample Description	Quantity Tested
1	2819058-1	2	N/A	Busbar GMI700 MY17	4
1	NA	NA	NA	J-case 40A	2

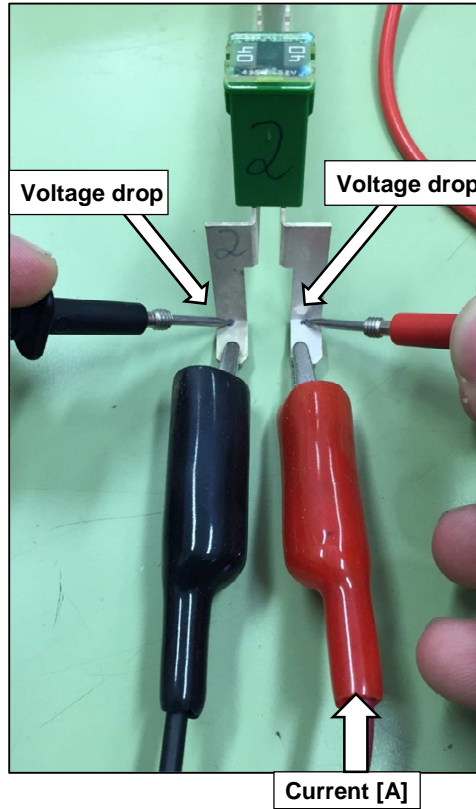
* Information either unavailable or not provided by requestor.

2.2. Wire Information

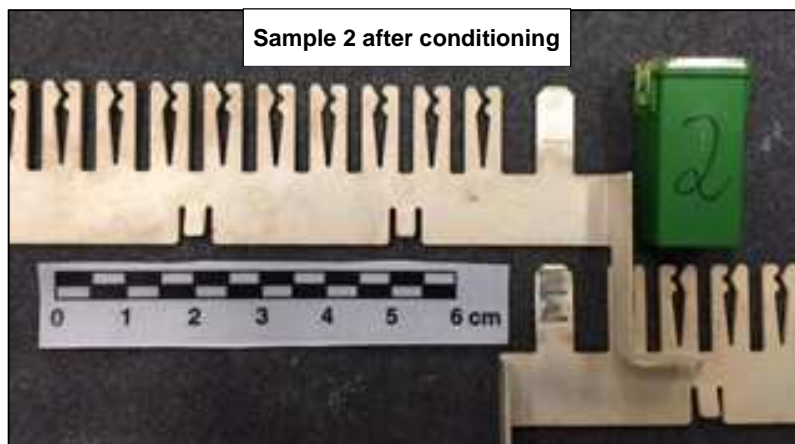
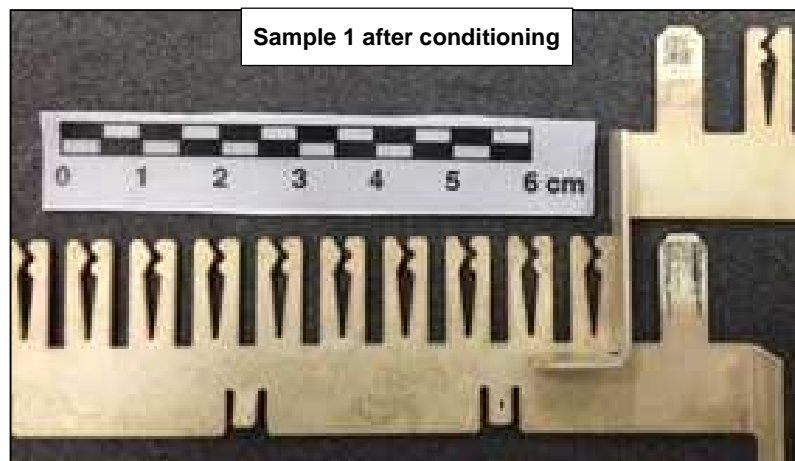
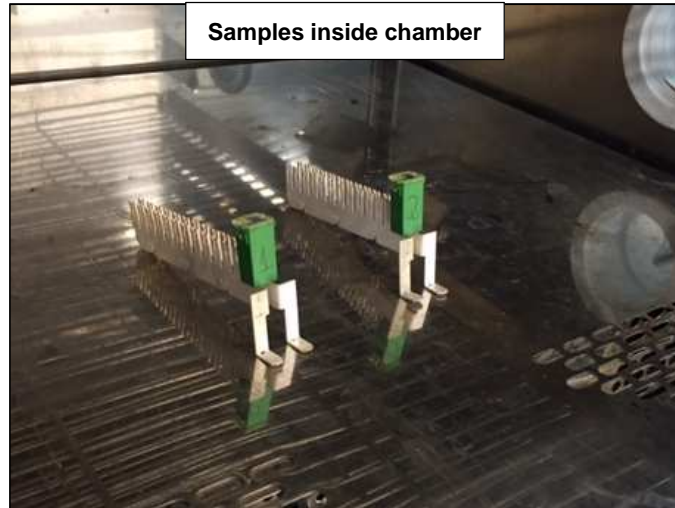
Group Number	Wire Gage	Overall Diameter	Strand Diameter	Number of Strands	Wire Length
NA	NA	NA	NA	NA	NA

3. SAMPLE PREPARATION

3.1. Voltage drop



3.2. Thermal shock / Temperature and humidity / Thermal aging



4. TEST PROCEDURE

4.1. Voltage drop

Measure the voltage drop between points described at item 3.1 by applying 1ADC to the circuit.

4.2. Thermal shock

10 thermal shock cycle as described below:
30min at -40°C
30min at 125°C
Transition time < 10 seconds.

4.3. Temperature and humidity

Soak the samples at 85°C and 90% humidity for 48 hours.

4.4. Thermal aging

Soak the samples at 125°C for 336 hours.

5. TEST EQUIPMENT

All equipment containing a calibration number is calibrated and traceable through TE to the National Institute of Standards and Technology (NIST).

Instrument Description	Manufacturer	Model Number	Calibration Number	Purpose
Climatic Chamber	Weiss	WK1 340	92-339032-004	Climatic room

6. APPROVALS

Approvals are secured electronically through the corporate document repository routing and approval system.

Testing & Report By: Diogo Rojas, Laboratory Engineer

Reviewed & Approved By: Paulo Almeida, Laboratory Coordinator