Elaborated by:	Laércio dos Santos Nelson Coelho	Checked by:	Karen Carolina Martins
Approved by:	Nelson Coelho	Approval Date:	14/07/2013

1 – OBJECTIVE

This document presents the additional criteria of "Rule of Certification of Products" - RC-002 for Conformity Evaluation Program, focusing on safety through the mechanism of voluntary certification for the granting and maintenance of the license for the use of Conformity Marking from TÜV Rheinland do Brasil Ltda, with the aim of more protection for the citizens and electrical installations.

2 – FIELD APPLICATION

It is applicable to all companies that request the grant of the license for the use of the Conformity Marking on the products:

- ABNT NBR NM 61008-1:2005 - Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCB) Part 1: General rules (IEC 61008-1:1996, MOD);
- ABNT NBR NM 61008-2-1:2005 - Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCB) Part 2-1: Applicability of the general rules to RCCB functionally independent of line voltage (IEC 61008-2-1:1990, MOD);
- IEC 61008-2-2:1990 - Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs) - Part 2-2: Applicability of the general rules to RCBO's functionally dependent on line voltage;
- IEC 61009-1:2006 - Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs) - Part 1: General rules;
- IEC 61009-2-1:1991 - Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBO's) - Part 2-1: Applicability of the general rules to RCBO's functionally independent of line voltage;
- IEC 61009-2-2:1991 - Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBO's) - Part 2-2: Applicability of the general rules to RCBO's functionally dependent of line voltage;

3 – RESPONSIBILITY

The responsibility for the revision of this "CRC" is from TÜV Rheinland do Brasil Ltda.

4 – ACRONYM AND ABBREVIATIONS

It is applicable the requirements of the clause 4 of the Rule – RC-002, complemented as follow:

NM - "Norma Mercosul" which means Southern Common Market;
OAC - "Organismo de Avaliação da Conformidade" which means Body of Evaluation of the Conformity;
OCS - "Organismo de Certificação de Sistema" which means Certification Body of System;
RAC - "Regulamento de Avaliação da Conformidade" which means Evaluation Rule of the Conformity;
UO - "Unidade Organizacional" which means Organizational Unit;
MOU - "Memorando de Entendimento" which means Memorandum Of Understanding; and
SBAC - "Sistema Brasileiro de Avaliação da Conformidade" which means Brazilian System of Conformity Evaluation.

5 – DEFINITIONS

It is applicable the requirements of the clause 5 of the Rule – RC-002, complemented as follow:

5.1 Conformity Marking

For this CRC, the text "Conformity Identification Seal", replaces the text "Conformity Marking".

5.1.1 For the purpose of the development of the conformity identification seal, the advices of the Inmetro rule 179/2009 are observed.

5.1.2 Specification

The Conformity Identification Seal, established in the Annex D of this CRC, has the purpose of indicating that the residual current operated circuit-breakers for household and similar uses are in accordance with the standards ABNT NBR NM 61008-1, ABNT NBR NM 61008-2-1, IEC 61009-1, IEC 61009-2-1, according to the processes of certification established in this RAC.

The requirements of the item 5.2 are not applicable, being replaced by those as follow:

5.2 Authorization for the use of the Conformity Identification Seal

The grant of the authorization for the use of the Conformity Identification Seal is carried out when the residual current operated circuit-breakers for household and similar uses are in accordance with the criteria established in this program of conformity evaluation in the ambit of this SBAC.

5.2.1 The authorization for the use of the Conformity Identification Seal has its validity connected to the validity of the granted record, when applicable.

5.2.2 Grant of Authorization

The Grant of the Authorization for the use of the Conformity Identification Seal obeys the criteria as described in the sub item 5.2.3.1.

5.2.2.1 Legal Instrument

The instrument that grants the authorization for the use of the Conformity Marking Seal *is the certificate of product* and must contain, at least, the following information:

a) Corporate Name, ID Card Number or Registration Business Entry, when applicable, and Main Office Address of the Applicant and of the Manufacturer, if the last is not the applicant.

   Note: The companies located Abroad, without representative person in Brazil, must present the legal document of constitution of the company in the country of origin;

b) Number of authorization;

c) Date of issue and validity of authorization;

d) Identification of the models covered by the authorization;

e) Name, number of record and signature of TÜV Rheinland do Brasil Ltda;

f) Identification of the lot, obligatory in case of conformity evaluation of the lot;

g) The certification system if of Model 5, or when the certificate is per lot, the certification system is of Model 7;

h) The effected date of the certificate;

i) The technical standards applicable to the certified product; and

j) The grant for the use of the marking (Authorization for the use of the Conformity Marking Seal of SBAC).

5.2.3 *The authorization for the use of the Conformity Marking Seal for Devices of Protection and Command will have the validity of 04 (four years).*

Note: The validity term can suffer adjustment in order to allow that in the expiry date, all the established activities for the period. For example: when the company is already a customer with other issued certificates and/or in reason of dates for the audits established.

5.3 – Certification Commission of TÜV (Technical Commission of TÜV):

For the voluntary certifications, with or without the accreditation scope, in the ambit of this "CRC", is formed a commission composed by, at least, representative persons of legal entities of the manufacturers, of consumers and of neutral organizations, all of them with known competence.

5.4 Commerce

Place where the products are made available for the consumers.

5.5 Manufacturer

Legal entity that carries out the process of assembly of residual current operated circuit-breakers for household and similar uses.

5.6 Model

Product of designation or unique trademark.

5.7 Data sheet

Report provided by the applicant of the certification containing the classification and the rated nominal characteristics of the product to be certified which must contain, at least, the trademark of the product, model, drawing, instructions of installation, list of materials and/or components and their specifications.

Photographic records and/or samples are provided when requested by TÜV Rheinland do Brasil Ltda.

NOTE 1: *This data sheet, for the foreign applicant(s) must preferably contain the information / texts in bilingual configuration (idiom), however, always having the text(s) in the English idiom. TÜV can request that the applicant provides all the documentation in Portuguese (for Brazil), in specific cases;*

NOTE 2: *Together with this data sheet, must be provided lists of the components and processes used for the production of the circuit breakers according to the homogeneous series informed by the applicant / manufacturer. It is applicable the same requirements as to idiom, informed in the NOTE 1.*

5.8 Critical Items

List of the items that affect directly the performance of the product face the tests of the specific standard of this product and/or eventual adjustments established in the Annex of this CRC. These items usually are informed in the form Construction Data File - FO-263 during the application for the commercial proposal.

5.9 Family

Set of models where the characteristics, included in the data sheet, are equal.

5.10 Body of Evaluation of the Conformity – OAC

Public, private or mixed body, of third part, accredited by INMETRO according to the criteria established by it, based on the principles and policies adopted in the ambit of SBAC.

5.11 Complementary Documents

- Inmetro rule Nº 102/2009 and Evaluation Rule of the Conformity (RAC), for the residual current operated circuit-breakers for household and similar uses;
- Inmetro rule n° 268/2011;
- Inmetro rule nº 179/2009;
- ABNT ISO/IEC Guide 2:2006 - Standardization and related activities - General vocabulary;
- ABNT ISO/IEC 17025:2005 – General requirements for the competence of testing and calibration laboratories;
- NBR 5410:2004 - Electrical installations of buildings - Low voltage;
- NBR ISO 9000:2005 - Quality systems - Fundamentals and vocabulary;
- NBR ISO 9001:2008 - Quality management systems - Requirements;
- ABNT NBR 5426:1985 - Sampling Plans and Procedure in the Inspection by Attribute – Procedure;
- ABNT ISO/IEC 17030:2005 – Conformity assessment - General requirements for third-party marks of conformity;
- ABNT ISO/IEC 17000:2005 – Conformity assessment - Vocabulary and general principles;
- ABNT ISO/IEC Guide 67:1998 – Conformity assessment - Fundamentals of product certification;
- ABNT ISO/IEC Guide 28:1998 – Conformity assessment - Guidance on a third-party certification system for products;
- ***ABNT NBR ISO/IEC 17065 – Requirements for bodies certifying products, processes and services;***
- RC-002 – Rule of Certification - Product; and
- Law nº 8.078/1990 – Consumer Defense Code, section IV – Abusive Practices.

6 – GENERAL CONDITIONS

It is applicable the requirements of the clause 6 of the Rule – RC-002.

7 – CONDITIONS OF GRANT

It is applicable the requirements of the clause 7 of the Rule – RC-002.

8 – MECHANISM OF CONFORMITY EVALUATION

The requirements of the clause 8 of the Rule – RC-002, are not applicable, being replaced by those as follow:

The mechanism of the conformity evaluation of residual current operated circuit-breakers, if of the voluntary certification.

This CRC establishes 2 (two) different models of certification for the grant of the authorization for the Use of the Conformity Identification Seal, where must the applicant opt for one of them:

a) Model with Quality Management System Evaluation of the Process of Production of the Product and Tests on the Product

This model consists in the evaluation and approval of the Quality Management System of the process of manufacturing, used in repetitive processes of series production, with audits of third part in the manufacturer and tests on the samples taken from the end of the process of production and in the commerce.

b) Model for with Certification per Lot

This model is based on the method "pass, not pass", for the certification of each lot, and must be applied to insulated lots of unique production or intermittent with large intervals of time, with little or no control recognition during the process of manufacturing.

Note: It is under responsibility of the applicant to formalize with TÜV Rheinland do Brasil Ltda, the model that must be used for the certification of its products included in this CRC.

Steps of the process of conformity evaluation

8.1 Model with the Evaluation of the Quality Management System of the Manufacturing and Tests

8.1.1 Initial Evaluation

8.1.1.1 Request of beginning of Process

8.1.1.1.1 TÜV Rheinland do Brasil Ltda must, at least, to analyze of the Quality Manual of the manufacturer and of the respective procedures, especially those relevant to the stages of manufacturing of the residual current operated circuit-breakers, object of the application.

8.1.1.1.2 The applicant must formalize, filling out the form provided by TÜV, its option by the model of certification where it is included the evaluation and the maintenance of the Quality Management System of the manufacturer of the product object of the application, as well as the execution of the tests established in the relevant technical standards listed in the item 2 of this CRC on samples collected in the manufacturer. In case of prototype, the manufacturer can send the necessary samples to the laboratory and/or TÜV Rheinland do Brasil Ltda, in accordance with both sides, and under responsibility of TÜV Rheinland do Brasil Ltda. The approval of the prototype does not exempt TÜV of validating the products after the beginning the operation of the production line.

NOTE: The condition of the legal representative person from the manufacturer of the product, foreign or national, must be clear in the application form.

8.1.1.1.3 In the application form must contain, in the annex, the denomination of the residual current operated circuit-breakers, its descriptive data sheet and the documentation of the Quality Management System of the manufacturer, elaborated for the fulfillment of the established in the **Annex A** of this CRC.

8.1.1.1.4 Acquisition

The Application must be done for one determined model and for one same plant unit.

8.1.1.2 Analysis of the application and of the documentation

After the analysis and approval of the application and documentation, TÜV Rheinland do Brasil Ltda, in accordance with the applicant, schedule the initial audit of the Quality Management System of the manufacturer, having as reference the Annex A of this CRC, and the collect of the samples in the manufacturer for the execution of all the type tests.

NOTE: The presentation and analysis of the Certificate of Quality Management System issued in the ambit of SBAC, having as reference the standard ABNT NBR ISO 9001:2008, and being this certification valid for the production line of residual current operated circuit-breakers for household and similar uses object of the application, according to TÜV criteria, based in this CRC, it exempts the holder of this certificate of evaluations of the Quality Management System established in this CRC, while the certificate is valid. In this case, the holder of the referred certificate must made available to TÜV all the records related to this certification, including the copy of the audit reports of its quality system and the records of the correct actions implemented.

8.1.1.3 Initial Test

8.1.1.3.1 Type Tests

The type tests are conducted by TÜV Rheinland do Brasil Ltda and must be carried out by laboratories accredited by Inmetro.

8.1.1.3.2 Definition of the tests to be carried out

The tests to be carried out are described in the annex B of this CRC.

8.1.1.3.2.1 Definition of the laboratory

The requirements for the selection of the laboratory are described in the clause 9 of this CRC.

8.1.1.3.2.2 Definition of the Sampling

The samples for the execution of the initial tests are established in the annex B of this CRC.

8.1.1.4 Initial audit

TÜV Rheinland do Brasil Ltda must carry out the initial audit having as reference the **Annex A** of this CRC, and:

a) TÜV Rheinland do Brasil Ltda must check the documentation (original) previously sent, focusing to validate the presented data, evidencing the information listed in the data sheet as to the basic design and their respective families and, to evaluate the conformity in the process face to the normative requirements.

b) TÜV Rheinland do Brasil Ltda must check the treatment of non-conformity in the initial evaluation;

c) After the initial audit, and during the initial test, having non-conformity, the auditor and the audited talk about the possible lines of action to be adopted for the elimination of it; the auditor must analyze the line of actions proposed by the audited for the elimination of the non-conformities.

d) Technical Commission of TÜV Rheinland do Brasil Ltda carries out the last analysis of the information

collected during the previous steps and recommend or not the certification.

8.1.1.5 Issue of the certificate of conformity

Fulfilling all the requirements established in this CRC and checked the conformity of the residual current operated circuit-breakers, TÜV Rheinland do Brasil Ltda submits the process to the Technical Commission that must decides about the grant of certification. The authorization for the use of the Conformity Identification Seal only must be granted after this stage.

8.1.1.5.1 The certification only can be granted toe the applicant that has in its process all the non-conformities eliminated, i.e., all the steps of the process (analysis of the data sheet, evaluation of the factory and tests), must be approved and evidenced by TÜV Rheinland do Brasil Ltda.

These records must be kept by TÜV Rheinland do Brasil Ltda as evidences of conformity of the process of certification.

8.1.1.5.2 The decision of the Technical Commission does not exempt TÜV Rheinland do Brasil Ltda of responsibilities on the certifications granted.

8.1.1.5.3 The product being conform, TÜV Rheinland do Brasil Ltda must formalize the grant of the authorization for the use of the Conformity Identification Seal, according to the established in the item 5.2, for the model(s) of product(s) that fulfill(s) the criteria established in this CRC.

8.1.2 Evaluation of maintenance

8.1.2.1 Planning of the evaluation of maintenance

The program of evaluation of the maintenance must establish all the activities described as follow, indicating the periodicity, the frequency of the activities and the sampling:

a) The periodical evaluations (audits, tests, technical visits or others) that will be carried out, indicating their characteristics and respective periodicities;

b) The periodical tests to be required. It must be indicated the sampling and the periodicity, defined in the ambit of the technical commissions, regarding the control of process established in the manufacturing, the tests carried out by the manufacturer, the technical standards or others;

c) The criteria of acceptance and rejection for the analysis of the test results;

d) The conditions (proof, counterproof, witness or others) for the issue of the judgment by side of the evaluator as to the conformity of the products by him evaluated.

8.1.2.2 Maintenance tests

The maintenance tests are established in the annex B of this CRC.

8.1.2.2.1 Definition of the laboratory

The requirements for the selection of the laboratory are described in the clause 9 of this CRC.

8.1.2.2.2 Definition of the sampling

The samplings for the surveillance are established in the annex B of this CRC.

8.1.2.2.3 Audit of maintenance

The surveillance audit must be carried out, once (1) a year, after granted the authorization for the use of the Conformity Marking Seal. TÜV Rheinland do Brasil Ltda can carry out audits in shorter periods since justified by changes in the productive process or denunciation of the product.

TÜV Rheinland do Brasil Ltda must assure and evidence that the products, that bear the Conformity Marking Seal of SBAC, available in the production unit and/or logistics are equal to those covered by the Certificate of Conformity in progress, as to the information listed in the data sheet referred to the basic design and to the respective families according to the records of the grant indicated in 8.1.1.5.1.

8.1.2.2.7.1 TÜV Rheinland do Brasil Ltda must proceed, at least, the following steps:

a) TÜV Rheinland do Brasil Ltda, in possession of the documentation (original) previously sent, must analyze the documentation of the audited, particularly as to its availability, order and retrieval and, to evaluate the conformity of the process against the normative requirements.

b) Treatment of the non-conformities in the surveillance audits;

c) After the audit and surveillance tests, having non-conformity, the auditor and the audited talk about possible lines of action to be adopted for the elimination of them; the auditor must analyze the lines of actions proposed by the audited for the elimination of the non-conformities.

d) Communication of the result of the surveillance audit to the applicant.

8.1.2.2.4 Issue of the certificate of the maintenance of the conformity (Renewal)

Fulfilled all the requirements required in this CRC and, checked the conformity of the residual current operated circuit-breakers, TÜV Rheinland do Brasil Ltda presents the process to the Technical Commission of Certification that must decides about the renewal of the Authorization for the use of the

Conformity Marking Seal. The decision of the Technical Commission of Certification does not exempt TÜV Rheinland do Brasil Ltda of responsibilities of the granted certifications.

8.1.2.2.4.1 Being the product conform and not having non-conformities in the Quality Management System of the applicant, TÜV Rheinland do Brasil Ltda must renew the Authorization for the use of the Conformity Marking Seal, according to the established in the item 5.2, for the model(s) of product(s) that fulfill(s) the criteria established in this CRC.

8.1.2.2.4.2 The occurrence of disapproval of the product on the maintenance tests of certification will imply the immediate suspension of the Authorization for the use of the Conformity Marking Seal for the disapproved model and its withdrawn from the market.

8.2 Model with Certification of Lot

8.2.1 Application for the beginning of the process

The applicant must formalize through a form provided by TÜV Rheinland do Brasil Ltda, its option for the model of certification that includes the evaluation of the product, object of the application, as well as the execution of the tests established in the relevant technical standards listed in the item 2 of this CRC on samples collected in the factory.

NOTE: the condition of representative person from the manufacturer of the product, foreigner or national, must be clear in the application form.

8.2.1.1 In the application must contain, in the annex, the denomination of the residual current operated circuit-breakers for household and similar uses and its data sheet.

8.2.2 Initial test

8.2.2.1 Type tests for the Lot

8.2.2.1.1 The type tests for the lot are those established in the sub item 8.1.1.3.1.

8.2.2.1.2 For the execution of the type tests for the lot must be followed the requirements established in the sub item 8.1.1.3.2.

8.2.2.2 Definition of the laboratory

The requirements for the selection of the laboratory are described in the item 9 of this CRC.

8.2.2.3 Definition of the sampling

The quantity of necessary samples for the execution of the type tests for the lot is described in the standard ABNT NBR NM 61008-1, ABNT NBR NM 61008-2-1, IEC 61009-1, IEC 61009-2-1. The same number of sample will be collected as proof, counter-proof and witness.

8.2.3 Tests for the Inspection of Lot

8.2.3.1 Beyond the type tests, described in the item 8.2.2.1, TÜV Rheinland do Brasil Ltda must, under its responsibility, carry out the following tests as indicated on one random current for homogeneous series:

ABNT NBR NM 61008-1, annex D

a) Tripping test according to the item D1;

b) Electric strength test according to the item D2;

c) Performance of the test device according to the item D3.

IEC 61009-1, annex D and item 9.2

a) Tripping test according to the item D1;

b) Electric strength test according to the item D2;

c) Performance of the test device according to the item D3;

d) Test of time-(over)current characteristic according to the items 9.9.2.1 and 9.9.2.2.

8.2.3.2 Definition of the laboratory

The requirements for the selection of the laboratory are described in the item 9 of this CRC.

8.2.3.3 Plan of Sampling of Inspection of Lot

The collected samples according to NBR 5426:1985, must obey the double sampling plan, general inspection level I and AQL of 0,25.

8.2.3.3.1 The tests for the inspection of lot must be carried out according to ABNT NBR NM 61008-1, ABNT NBR NM 61008-2-1, IEC 61009-1, IEC 61009-2-1, using the totality of the collected samples, divided in two equal parts for each one of the checkings, not being allowed non-conformities.

8.2.4 Treatment of deviates in the process of conformity audit

8.2.4.1 Treatment of non-conformity in the process of initial audit

8.2.4.1.1 The type tests for the lot must not present non-conformity.

8.2.4.1.2 In case of occurrence of non-conformities, the lot is disapproved for the purpose of certification.

8.2.4.2 Treatment of non-conformity of the process of inspection of lot

8.2.4.2.1 The tests for the inspection of lot must not present non-conformities.

8.2.4.2.2 In case of occurrence of non-conformities, the lot is disapproved for the purpose of certification.

9 – RECOGNITION OF THE CERTIFICATION ACTIVITIES

The requirements of the clause 9 of the Rule – RC-002, are not applicable, being replaced by those as follow:

For the recognition and acceptance of the certification activities established in this CRC, but implemented by one certification body that operates abroad, TÜV Rheinland do Brasil Ltda must fulfill as described below:

1) any agreement of recognition of necessary activities for the certification, such as test results or report of audit, with certification bodies operating abroad, only are accepted if the activities, beyond of being recognized reciprocally, are carried out by bodies that fulfill the same rules of accreditation adopted by Inmetro;

2) in any situation, TÜV Rheinland do Brasil Ltda is the responsible for the product certification.

9.1 Activities carried out by foreign Certification Bodies

The activities of evaluation of conformity, carried out by one foreign body, can be accepted, since observed all the following conditions:

a) TÜV Rheinland do Brasil Ltda accredited by Inmetro, has a MOU with the foreign body;

b) The foreign body is accredited by the same international rules adopted by Inmetro, for the same scope or equivalent;

c) The activities carried out abroad are equivalent to those ruled by Inmetro;

d) TÜV Rheinland do Brasil Ltda accredited by Inmetro, issues the certificate of conformity to the Brazilian rule and takes the responsibilities of the activities carried out abroad and resulting of this issue, as if it had conducted itself all the activities;

e) TÜV Rheinland do Brasil Ltda is the responsible for the judgment and the grant of the certificates of conformity; and

f) Inmetro approves the MOU.

NOTE: *For products that has already type tests carried out and that fulfill the criteria of family (homogeneous series), according to the item* ***B.2.5,*** *and the use of laboratory(ies) as item 9.2 of this CRC, TÜV Rheinland do Brasil Ltda will only accept and analyze the test report(s) (type) and documents, issued at maximum 2 years (24 months).*

9.2 Use of laboratory of tests

9.2.1 The tests established as the certification models, established in the item 8 of this CRC, excepting routine tests, must be carried out in laboratories of third part accredited by Inmetro for the scope of the relevant tests.

9.2.2 Exceptionally and precariously, since conditioned to an evaluation by TÜV Rheinland do Brasil Ltda, can be used laboratory not accredited for the specific scope, when found one of the hypothesis as described below:

I. When there is no laboratory accredited by Inmetro for the scope of the program of evaluation of the conformity, at the moment of the publishing of the rule related to the program;

II. When there is only one laboratory accredited by Inmetro, and TÜV Rheinland do Brasil Ltda evidences that the price of the analysis of the laboratory not accredited, added more the resulting costs of the evaluation by TÜV Rheinland do Brasil Ltda, compared to the accredited are, at minimum, inferior to 50%;

III. When the laboratory(ies) accredited by Inmetro do(es) not fulfill the maximum of two months the period for the beginning of the tests established in the rules.

NOTE: The evaluation carried out by TÜV Rheinland do Brasil Ltda, in the laboratory not accredited, must be carried out as the annex of NIT-DICOR-021, by professional of TÜV Rheinland do Brasil Ltda that has register of training of the Standard ABNT NBR ISO/IEC 17025.

9.2.3 When found one of the hypothesis previously described, TÜV Rheinland do Brasil Ltda must follow the order of priority in the selection of the laboratory not accredited by Inmetro for the specific scope:

a) Laboratory of third part accredited for other scope(s) of test(s);

b) Laboratory of first part accredited;

c) Laboratory of third part not accredited;

d) Laboratory of first part not accredited.

9.2.4 Considering the possibilities described in the sub items 9.2.2 and 9.2.3, TÜV Rheinland do Brasil Ltda must present to Inmetro evidences of documents that justify the reasons that took it to select the laboratory.

9.2.5 TÜV Rheinland do Brasil Ltda must keep the records of the evaluation carried out fulfilling the annex of the Inmetro standard NIT-DICOR-021 as posterior findings.

9.2.6 In case of hiring of laboratory of first part, not accredited, TÜV Rheinland do Brasil Ltda must follow the execution of all tests, for each time that the laboratory carries out the service.

9.2.7 In case of hiring of laboratory of third part accredited for other scope(s) of test(s), TÜV Rheinland do Brasil Ltda must evaluate the requirements of the annex of the Inmetro standard NIT-DICOR-021, excepting the items 1 to 3.

9.2.8 For the tests carried out by foreign laboratories, must be observed the equivalence of the test method and the method of sampling established. Beyond of that, these laboratories must be accredited by Inmetro or by one Accreditation Body that is signatory by one agreement of mutual recognition in which Inmetro takes part of it.

They are:

a) Interamerican Accreditation Cooperation – IAAC
b) European Cooperation for Accreditation – EA
c) International Laboratory Accreditation Cooperation – ILAC

10 – OBLIGATIONS OF THE APPLICANT (LICENSED COMPANY)

It is applicable the requirements of the clause 10 of the Rule – RC-002, complemented with those below.

10.15 To submit previously to the Quality Board, from Inmetro, all the material of publishing where figures the Conformity Identification Seal.

11 – OBLIGATIONS OF THE CERTIFICATION BODY

It is applicable the requirements of the clause 11 of the Rule – RC-002, complemented with those below.

11.1 The first paragraph takes place with the following text:

To implement the program of evaluation of the conformity, established in this CRC, as the requirements here established *and also in the Inmetro rule nº 102/2009*, clarifying obligatorily the doubts with Inmetro.

11.2 To use the system of database provided by Inmetro to keep up-to-date the information about the certified products.

11.3 To notify immediately to Inmetro when the suspension, extension, reduction and cancellation of the certification.

11.4 To proceed, according to established in the sub item 18.3, in case of the certified company ceases the manufacturing or importation of the residual current operated circuit-breakers.

11.5 To submit to Inmetro, for analysis and approval, the Memorandum of Understanding, in the scope of this CRC, established with other certification bodies.

11.6 To check the fulfillment, by the manufacturer/applicant, of the sub item 10.14

12 – EXTENSION OR REDUCTION OF THE SCOPE OF CERTIFICATION

It is applicable the requirements of the clause 12 of the Rule – RC-002, complemented with those below.

12.1 In case of application of extension for the scope of the Authorization for the use of the Conformity Marking Seal, the residual current operated circuit-breakers for household and similar uses, related to it only will be able to be commercialized from the moment when TÜV Rheinland do Brasil Ltda approves the extension.

12.1.1 When the applicant wishes extend the authorization for the additional models of the same basic design of one product, of one same manufacturing unit, fulfilling the same technical standards, can apply to TÜV Rheinland do Brasil Ltda the extension of it.

12.1.1.1 The application must be done for one determined model and for one same manufacturing unit.

12.1.1.2 When the applicant moves on or makes at more than one place keeping the same design of the product, fulfilling the same technical standards, can apply to TÜV Rheinland do Brasil Ltda the extension of the certification, carrying out the evaluation of the quality system of the factory and the maintenance tests.

12.1.1.3 TÜV Rheinland do Brasil Ltda must check the information described in the data sheet as to its basic design and as to its respective families and, evaluate the conformity of the process to the normative requirements.

13 – APPEAL

It is applicable the requirements of the clause 13 of the Rule – RC-002.

14 – DURATION AND MAINTENANCE OF THE CERTIFICATION

It is applicable the requirements of the clause 14 of the Rule – RC-002, complemented with those below.

The maintenance of the authorization for the use of the Conformity Identification Seal is conditioned to the

non-existence of non-conformity during the evaluation of the maintenance, as established in the sub items B.2.2 and C.1.2, of this CRC.

15 – COMPLAINTS AND DENUNCIATION

It is applicable the requirements of the clause 15 of the Rule – RC-002.

16 – UNDUE USE OF THE CERTIFICATION

It is applicable the requirements of the clause 16 of the Rule – RC-002.

17 – SUSPENSION OF THE CERTIFICATION

It is applicable the requirements of the clause 17 of the Rule – RC-002, complemented with the requirements of 18.1 to 18.5.1.

18 – CANCELATION OF THE CERTIFICATION

It is applicable the requirements of the clause 18 of the Rule – RC-002, complemented with those below.

18.1 The certified company that ceases definitely the manufacturing or importation of the residual current operated circuit-breakers must communicate this fact immediately to TÜV Rheinland do Brasil Ltda.

18.2 – In possession of this communication, TÜV Rheinland do Brasil Ltda must schedule one extraordinary audit for the checking and record of the following requirements:

a) how many and when was made the last product lot;

b) available material in stock for the new productions;

c) quantity of finished product in stock and which foresight is supposed by the certified company for this batch is consumed;

d) if the requirements established in this CRC were fulfilled since the last audit of maintenance;

18.3 –TÜV Rheinland do Brasil Ltda must also schedule the closing tests of process. These tests are all those established in the standard ABNT NBR NM 61008-1, ABNT NBR NM 61008-2-1, IEC 61008-2-2, IEC 61009-1, IEC 61009-2-1 e IEC 61009-2-2.

18.4 – If the result of these tests presents any non-conformity, TÜV Rheinland do Brasil Ltda, before considers the process cancelled, will request the certified company the relevant treatment, establishing the dispositions and the period of implementation.

NOTE: case the found non-conformity does not put under risk the safety, under analysis and responsibility of TÜV Rheinland do Brasil Ltda, the process can be kept by TÜV Rheinland do Brasil Ltda with no further actions related to the products that are in the commerce.

18.5 – Once concluded the steps described above, TÜV Rheinland do Brasil Ltda notifies the cancelation of the authorization for the use of the Conformity Marking Seal to its Technical Commission and to Inmetro.

18.5.1 – In case of suspension or cancelation of the certificate/record, when applicable, by non-fulfilling of any one of the requirements established by CRC, will be the authorization for the use of the Conformity Identification Marking under the same condition.

19 – RESIGNATION

It is applicable the requirements of the clause 19 of the Rule – RC-002.

20 – VARIATION OF THE REQUIREMENTS OF CERTIFICATION

It is applicable the requirements of the clause 20 of the Rule – RC-002.

21 – REVISIONS MADE

Change in the encoding of the document.

Change in the item 5.11 Complementary Documents in the term where contains “Guide 65” to “ABNT NBR ISO/IEC 17065”.

ANNEX A – REQUIREMENTS FOR THE EVALUATION OF THE QUALITY MANAGEMENT EVALUATION OF THE FACTORY

A.1 The evaluation, initial and periodic, of the system of the quality control of the quality of manufacturing, will be carried out by TÜV RHEINLAND DO BRASIL.

A.2 The evaluation, initial and periodic, of the system of the quality control of manufacturing must check the fulfillment of requirements listed below, when applicable in the scope of the System of Quality Management of the Manufacturer:

1. Control of records - to fulfill the item 4.2.4 of the Standard (*)
2. Control of production - to fulfill the item 7.5.1 and 7.5.2 of the Standard (*)
3. Identification and traceability - to fulfill the item 7.5.3 of the Standard (*)
4. Preservation of product - to fulfill the item 7.5.5 of the Standard (*)
5. Control of monitoring and measuring equipment - to fulfill the item 7.6 of the Standard (*)
6. Monitoring and measurement of product - to fulfill the item 8.2.4 of the Standard (*)
7. Control of nonconforming product - to fulfill the item 8.3 of the Standard (*)
8. Corrective action - to fulfill the item 8.5.2 of the Standard (*)
9. Preventive action - to fulfill the item 8.5.3 of the Standard (*)

*** Note**: For this evaluation, will be used as reference, the content presented in the standard NBR ISO 9001:2008 - Quality Management Systems - Requirements.

A.3 Routine tests 100%:

a) Tripping test;
b) Verification of the test button;
c) Dielectric properties;
d) Verification of the Calibration (Only for residual current operated circuit-breakers with integral overcurrent protection);

Routine tests, with AQL and IL according to the manufacturer's procedure and under its responsibility:

e) Visual checking;
f) Marking checking; and
g) Closing and opening operation.

A.4 The manufacturer must keep the test records of the tests carried out as in A.3, indicating the product type, test date, place of manufacturing (if made in different places), tested quantity, number of fails and actions taken, i.e., destructed or repaired.

A.5 If the manufacturer has quality management system certified by a System Certification Body accredited by Inmetro, according to NBR ISO 9001:2008, with audit conducted by a Lead Assessor registered in SBAC, TÜV Rheinland do Brasil Ltda must analyze the documentation related to the certification of the quality system, assuring that the requirements described above were checked focusing the product to be certified. Otherwise, TÜV Rheinland do Brasil Ltda must check the fulfillment of the requirements described in the sub items A.2, A.3 and A.4.

A.6 The periodic evaluation of the quality management system of the manufacturing must be carried out, at least, once (1) a year after the grant of the authorization for the use of the Conformity Identification Seal.

A.7 Traceability

TÜV Rheinland do Brasil Ltda must check the traceability of the certified products in the controls of the authorized company or applicant**.**

ANNEX B – TESTS AND SAMPLINGS

B.1 The tests described in this CRC are established in the specific standards, any corrigendum, amend or update in the version of these standards, only can be used with the authorization of TÜV Rheinland do Brasil Ltda.

B.2 General

The collect of samples for the tests of certification and maintenance is carried out by TÜV Rheinland do Brasil Ltda.

B.2.1 Certification or Initial Tests

The certification tests and the respective samplings for each product established in this CRC are established in the annex B.3.x.2.

In case of prototype, the manufacturer can collect and send the necessary samples to the Laboratory and/or TÜV Rheinland do Brasil Ltda., by agreement between them, and under analysis of TÜV Rheinland do Brasil Ltda. The approval of the prototype in the initial tests does not exempt TÜV Rheinland do Brasil Ltda. of validating the products after the beginning of the functioning of the production line.

NOTE: *For the products that has already type tests carried out and that fulfill the criteria of family (homogeneous series), according to the item* ***8.1.1.3.1.1,*** *and of using of laboratory(ies) as item 9.2 of this CRC, TÜV Rheinland do Brasil Ltda only will be able to accept and will accept the test reports (type) and documents, issued at maximum within 2 years (24 months).*

B.2.2 Maintenance tests

B.2.2.1 The maintenance tests are described in the annex B.3.x.3.

B.2.2.2 The conduction of the maintenance tests will be carried out by TÜV Rheinland do Brasil Ltda., being taken in the commerce (or from the manufacturer's logistics) or from the manufacturer's stock.

B.2.2.3 The collected samples must be sent to the laboratory within the maximum term of 15 days after the collect. If these samples are not sent within the established term, the certificates can be suspended.

B.2.2.4 The maintenance tests must be carried out, once (1) a year, in one cycle of 04 (four) years, after the grant of the Authorization for the use of the Conformity Identification Seal.

TÜV Rheinland do Brasil Ltda can carry out the tests in shorter periods since justified by changes in the productive process or denunciations of the product.

B.2.2.5 Definition of the sampling

B.2.2.5.1 The representative samples of the production, as methods described in the applicable standards listed in the item 2 of this CRC, must be submitted to the maintenance tests. From each certified basic design must be collected samples from the commerce of at least one family, considering the totality of maintenance tests to be carried out.

B.2.2.5.2 TÜV Rheinland do Brasil Ltda must elaborate a report of the collect of sample detailing the conditions of how the sample was got.

B.2.3 Routine Tests

The routine tests are established in the item A.3, of the annex A.

B.2.4 Periodic Tests

The periodic tests are established in the item A.3, of the annex A.

B.2.5 Definition of the family

For one set of residual current operated circuit-breakers, be considered as the same family must, necessarily, fulfill the following requirements:

1) Same basic design;
2) Identical mechanism of actuation and identical relay, except for the allowed variations in c) and d);
3) Same materials, finishes and the dimensions of the internal conductive parts, except for the variations detailed in a);
4) Same type of terminal (see b);
5) Same size, material, configuration and method of fixation of the contacts;
6) Same mechanism of operation and same materials and physical characteristics;
7) Same materials of mould and of insulation;
8) Method and the materials and the construction used for the extinguishing arc device are identical;
9) Same differential transformer, except for the variations established in c);
10) Same relay, except for the variations defined in d);
11) The basic design of the test device is identical, except for the variations defined in e);

The following variations are allowed:

a) The cross-sectional area of the internal current-carrying connections, and the and lengths of the toroid connections;
b) Size of terminals;
c) number of turns and cross-sectional area of the windings and the size and material of the core of the differential transformer
d) The sensitivity of the relay and/or the associated electronic circuit, if any;
e) The ohmic value of the means to produce the maximum ampere-turns necessary to conform to the tests of 9.16. The circuit may be connected across phases or phase to neutral.

B.3 Particularities

The tests for the products established in this "CRC" are described in B.3.1 and B.3.2.

B.3.1 IDR´s (RCCB´s)

B.3.1.1 Product description

Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) as standards ABNT NBR NM 61008-1:2005, ABNT NBR NM 61008-2-1 and IEC 61008-2-2.

B.3.1.2 Initial tests

The type tests are all the tests described in the standards ABNT NBR NM 61008-1, ABNT NBR NM 61008-2-1, IEC 61008-2-2**.**

B.3.1.2.1 Sampling definition

The collect of sampling for the execution of the tests must be carried out by TÜV Rheinland do Brasil Ltda, obeying the quantity established for the execution of the tests according to the specified in the standards ABNT NBR NM 61008-1, ABNT NBR NM 61008-2-1, IEC 61008-2-2, taken from each family, object of the certification.

B.3.1.3 Maintenance tests

B.3.1.3.1 For the residual current operated circuit-breakers, according to ABNT NBR NM 61008-1, must be carried out the tests as established below:

a) 1º year: Sequences D0 and C;

b) 2º year: Sequences D0, E and F;

c) 3º year: Sequences D0, D1 and A (only section 9.14);

d) 4º year: Sequences D0, E and F.

B.3.1.3.2 At the end of the cycle of 4 (four) years, must be started a new sequence of tests and checkings, according to the sub item **B.3.1.3.1**.

B.3.2 DDR's

B.3.2.1 Production description

Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs) according to the standard IEC 61009-1, IEC 61009-2-1 and IEC 61009-2-2.

B.3.2.2 Initial tests

The type tests are all the tests described in the standards IEC 61009-1, IEC 61009-2-1 and IEC 61009-2-2.

B.3.2.2.1 Sampling definition

The collect of samples for the execution of the tests must be carried out by TÜV Rheinland do Brasil Ltda, obeying the quantity established for the execution of the tests according to the specified in the standards IEC 61009-1, IEC 61009-2-1 and IEC 61009-2-2, taken from each family, object of certification.

B.3.2.3 Maintenance tests

B.3.2.3.1 For the residual current operated circuit-breakers, according to IEC 61009-1, must be carried out the tests as established below:

a) 1st year: Sequences D0, E0 and C;
b) 2nd year: Sequences D0, E0, E and F;
c) 3rd year: Sequences D0, E0, D1 and A (only section 9.14);
d) 4th year: Sequences D0, E0, E and F.

B.3.2.3.2 At the end of the cycle of 4 (four) years, must be started a new sequence of tests and checks, according to the described in the sub items **B.3.2.3.1.**

ANNEX C – ACTING FACING TO THE NON-CONFORMITIES

C.1 Treatment of the deviates in the process of conformity evaluation

C.1.1 Treatment of the non-conformities in the process of initial evaluation

In case of occurrence of non-conformities on type tests, the manufacturer must make the necessary adjustments on which after, new samples can be collected by TÜV Rheinland do Brasil Ltda.

C.1.2 Treatment of non-conformities in the maintenance process

If it was identified any non-conformity at any one of the maintenance process, they must be repeated on 2 (two) new samples, for the attribute non-conforming, not being allowed the identification of any one non-conformity.

NOTE**:** If TÜV Rheinland do Brasil Ltda judges relevant, in agreement with the manufacturer, the non-conformity can be confirmed without the execution of the tests on the counterproof and witness.

C.1.2.1 When the confirmation of the non-conformity, TÜV Rheinland do Brasil Ltda will suspend immediately the authorization for the use of the Conformity Identification Seal, requesting the manufacturer the relevant treatment, with the definition of the corrective actions and with the terms for the implementation.

C.2 Treatment of non-conforming products in the market

C.2.1 The conduction of the maintenance tests, as well as the collect of samples, must be carried out by under responsibility of TÜV Rheinland do Brasil Ltda, being the samples taken from only in the commerce, obeying one minimum quantity for the execution of the tests, considering *samples, counterproof and witness*.

C.2.2 If the found non-conformity does not put under risk of safety of the user, under analysis and responsibility of TÜV Rheinland do Brasil Ltda, the manufacturer can have not suspended its authorization for the use of the Conformity Identification Seal, since assure TÜV Rheinland do Brasil Ltda, through corrective actions, the correction of the non-conformity on the existing products in the market and the implementation of these actions on the production line.

ANNEX D – CONFORMITY IDENTIFICATION IN THE AMBIT OF SBAC

The manufacturer and the importer of residual current operated circuit-breakers, must follow the advices indicated for the use of the Conformity Identification Seal:

D.1 Conformity Identification Seal on the Package

a) On the package, the seal can be printed or can be used one label, with characteristics of indelible, since obey the dimensions as established below.

b) The use of colors on the seals has the purpose to differentiate the focus of the Program. And so, the seal of one Program, whose focus is safety, must be in yellow. However, the "colored" version must be preferably used, is allowed the use of the version "one color".

c) On the individual package of products, must use the model of the ***complete seal***. However, in cases where there is no enough space for the application of the complete seal or in cases where the application is made by direct printing on the package, will be allowed the use of the seal "***compact, Model 2***" without the word "Segurança". In this case, will be allowed the printing the word "Segurança" beside on the right side or left side of the seal, as the model below, if respected the minimum dimension of the seal, of 11mm of width, and the font to be used on the word "Segurança".

d) On the collective packages of products, used to pack individual packages already suitable identified, however must be preferably used the seal "one color" or the seal "compact, Model 2", is allowed the application of the seal "compact, Model 2" without the word "Segurança", or the application of one phrase mentioning "esta embalagem contém produtos certificados" in which means this package contains certified products.

D.2. Conformity Identification Seal on the Product

a) On the product, when the conformity identification is stamped or inserted through the seal, if the frontal part of the residual current operated circuit-breakers does not fit in, can be put on another part of them.

b) On products where there is no enough space for the application of the seal "compact, Model 2" or in cases where the application is made by the direct marking on the product through the use of mould, will be allowed the use of the seal "***compact***" without the word "Segurança", respecting the minimum dimension of the seal, of 11mm of width.

NOTE: The marking "UCIEE" will be granted only for the customers that has already the authorization for the use of this marking, and that they did not want to replace for the TÜV marking.

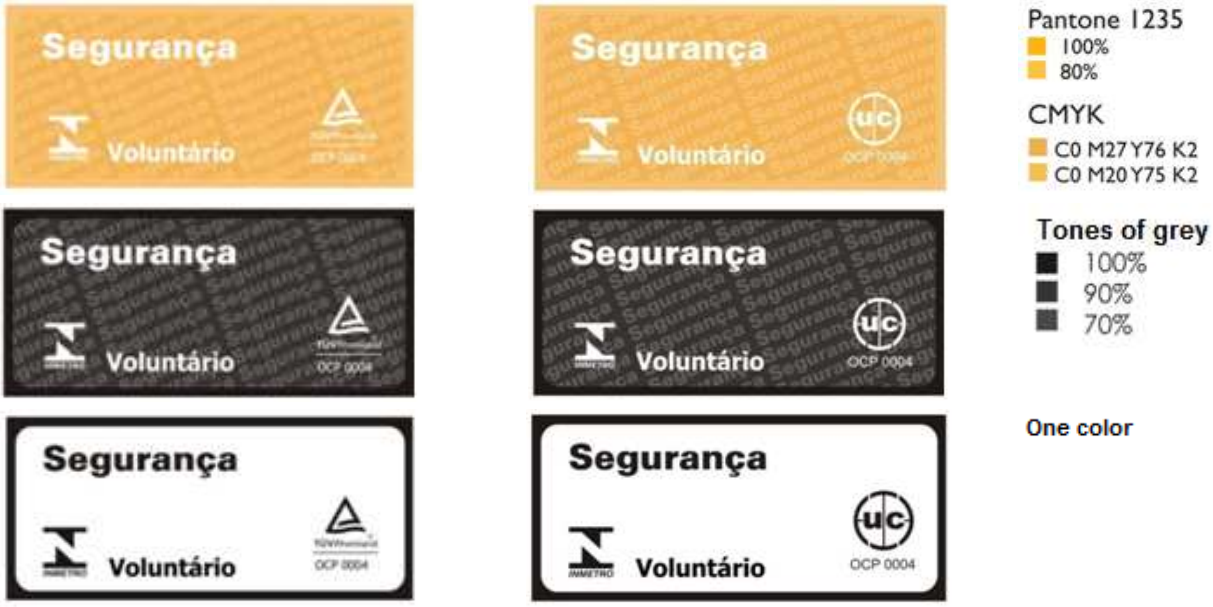
D.3 Models of Conformity Identification Seals

These images are only reference. The official images must be requested to TÜV Rheinland do Brasil Ltda, and will provided in electronic format appropriated.

Before starting the use of the images, the Licenses Company must await the approval of TÜV Rheinland do Brasil Ltda, of all uses that intends to do with these images.

a) Complete seal

Markings Inmetro and TÜV Rheinland	Markings Inmetro and Uciee



b) Compact seal, model 2

Markings Inmetro and TÜV Rheinland	Markings Inmetro and Uciee
	

c) model of compact seal with the word segurança on the right side or left side

d) Compact seal without the word "Segurança"

e) minimum sizes

50mm

11mm

50mm

11mm

ANNEX E – TREATMENT OF COMPLAINTS (OF CUSTOMERS OF THE LICENSED COMPANIES)

The supplier must have a systematic for the treatment of complaints of its customers, including the following requirements, depending on the specificities of the object of the program:

E.1 A Policy for the Treatment of the Complaints, signed by its greatest executive, that evidence that the company:

a) To set a value and gives effective treatment to the complaints presented by its customers;
b) To know and to compromise to fulfill and to be subjected to the penalties established by the laws (Law nº 8078/1990, Law nº 9933/1999 etc.);
c) To stimulate and to analyze the results, as well as to take due actions, in reason of the statistics of the received complaints;
d) To establish the responsibilities as to the treatment of the complaints;
e) To compromise to answer Inmetro for any complaint that it has received and within the term by it, established a person or team formally designated, duly competent and able for the due treatment to the complaints;

E.2 Development of a program of training for a person or team responsible for the treatment of the complaints, as well as for the remaining people involved, including at least the following topics:

a) Rules and standards applicable to the products, processes, services, persons or management systems;
b) Notions about the laws 8.078, from September 11th, 1990, that establishes about the protection of the consumer and makes other arrangements; and 9.933, from December 20th, 1999, that establishes about the competences of Conmetro and from Inmetro, establishes the metrological service taxes, and makes other arrangements;
c) Notions of interpersonal relationship;
d) Policy of Treatment of Complaints;
e) Procedure for the Treatment of Complaints.

E.3 When relevant, separated installations and of easy access by the customers that wish to formulate complaints, as well as with indicative signs and posters affixed stimulating the complaints and informing about how and where to complaint;

E.4 Procedure for the Treatment of Complaints, that must include a simple form of record of the complaint by the customer, as well as the traceability, investigation, answer, resolution and closing of the complaint;

E.5 Records of each one of the complaints presented and treated;

E.6 Map that allows to visualize easily the situation (example: in analysis, progress, real situation, solved etc) of each one of the complaints presented by the customers within the last 18 months;

E.7 Statistics that evidences the number of complaints formulated in the last 18 months and the average period of resolution.

E.8 Execution of the semi-annual critical analysis of the statistic of the received complaints and evidences of implementation of the correspondent corrective actions, as well as the opportunities of improvement.