

### ❖ Safety Certification – Electrical/Electronic Products - NOM Program

### *Content:*

- Accredited Standards
- Legal Requirements to register the company
- Certification Process
- By standard: Certification Schemes, Requirements, and Technical Documentation required by the scheme

### > Acredited Standards

- NOM-001-SCFI-2018, Electronic devices Safety requirements and test methods.
- NOM-003-SCFI-2014, Electrical products Safety specifications.
- NOM-019-SCFI-1998, Safety of Data Processing Equipment.
- NOM-058-SCFI-2017, Controllers for artificial light sources, for general lighting purposes-Safety specifications and test methods.
- NOM-063-SCFI-2001, Electrical products Wire and cables -Safety requirements

### Legal Requirements to Register the Company

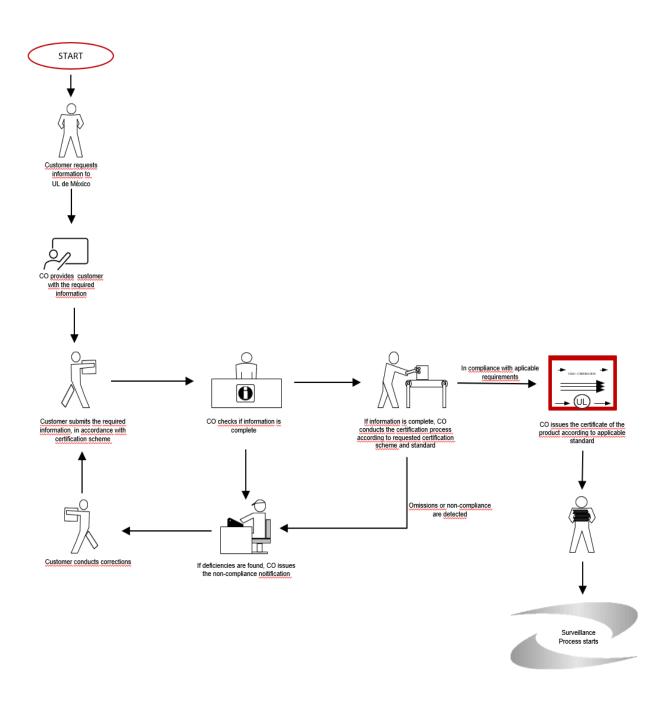
### **LEGAL DOCUMENTATION** (Only if it is the first time the certification service is requested)

|    | Documentation/Standard   | NOM-001-<br>SCFI-2018 | NOM-003-<br>SCFI-2014 | NOM-019-<br>SCFI-1998                    | NOM-058-<br>SCFI-2017 | NOM-063-<br>SCFI-2001 |
|----|--|-----------------------|-----------------------|--|-----------------------|-----------------------|
| a) | Copy of the company's Articles of Incorporation.   | x                     | x                     | X<br>(Does not apply<br>to modality III) | х                     | x                     |
| b) | Power of Attorney of the legal representative, if not included in the articles of incorporation (in the case of legal entities). | x                     | х                     | x  | х                     | x                     |
| c) | Copy of official identification of the legal representative or natural person, as well as the processors (as appropriate).       | x                     | x                     |  | x                     |                       |



| d) | Two (2) original certification service agreements; signed in the corresponding area.   | x | х | х                                 | x | х |
|----|--|---|---|-----------------------------------|---|---|
| e) | Copy of the taxpayer registry (RFC card) and written letter signed by the legal representative in which customer declares under protest of telling the truth that they are located in the strip or border region of the country. |   |   | X<br>(Applies to<br>modality V)   |   |   |
| f) | Certified copy of the articles of incorporation of the national or foreign manufacturer in Spanish or accompanied by its translation.  |   |   | X<br>(applies to<br>modality III) |   |   |
| g) | Interested parties from other countries: Simple copy of the legal constitution of the legal entity requesting the service and its translation into Spanish.  | Х | х |                                   |   |   |
| h) | Interested parties from other countries: Simple copy of a credential or an official identification for natural persons.  | х | х |                                   | х |   |
| i) | Power of Attorney for Processors, when applicable.   | х | х | х                                 | х | х |

# Proceso de Certificación





### Esquemas de Certificación y Requisitos por Norma

#### NOM-001-SCFI-2018, Electronic devices - Safety Requirements and Test methods.

Applies to electronic equipment and its accessories that use for their supply the electrical energy of the public service, with single-phase supply voltages up to 277 V a.c. at 60 Hz and / or three-phase voltages up to 480 V a.c. between lines at 60 Hz; as well as other energy sources, such as batteries, accumulators, self-generation and alternative power sources up to 500 V dc.

### **Certification Schemes**

The certification of electronic equipment or systems in the different certification schemes, where appropriate, can be applied contemplating different factories, as long as they meet the corresponding family grouping criteria, this in accordance with the provisions of Appendix B of the NOM.

# 6.5.2.1 Certification scheme with follow-up of electronic equipment or system at point of sale (marketing) or factory or warehouse.

- This certification scheme is based on the type testing procedure for both the initial certification and the follow-ups of the product, which are carried out at the point of sale or in the commercialization or factory or warehouse.
- Lt does not apply to second line, discontinued, rebuilt, reconditioned, used or second-hand electronic equipment or systems.
- The Certificate issued through this scheme is valid for one year and can be renewed for the same period, based on the result of the follow-up and corresponding renewal procedure.
- During the validity of the certificate of conformity, the interested party must opt for one of the 2 tracking options:
  - a) A follow-up with type tests, which must be carried out before the ninth month after the Certificate of Conformity is issued.
  - b) Two follow-ups with partial tests, proving a type sample, the first must be carried out before the sixth month and the second before the tenth month after the Certificate of Conformity is issued.
- For follow-up, the sample is taken at random in the factory or warehouse or at the point of sale.

# 6.5.2.2 Certification scheme with surveillance of electronic equipment or system at point of sale (marketing) or factory or warehouse and traceability system.

- This certification scheme is based on standard tests for initial certification and follow-up to the traceability system. An accredited and approved OCP checks compliance with the type test and traceability system (pre-visit).
- This certification scheme does not apply to second line, discontinued, rebuilt, reconditioned, used or second-hand electronic equipment or systems.



- The Certificate issued through this scheme is valid for up to two years and can be renewed for the same period, based on the result of the follow-up and corresponding renewal procedure.
- During the validity of the Certificate of Conformity, the interested party must opt for one of the 2 surveillance options:
  - a) A follow-up with type tests, which must be carried out before the ninth month after the Certificate of Conformity is issued.
  - b) Two follow-ups with partial tests, proving a type sample, the first must be carried out before the twelfth month and the second before the twentieth month after the Certificate of Conformity is issued.
- At least one follow-up is made to the Traceability System to the twelfth month of the issuance of the Certificate of conformity of the product, according to Appendix D of the NOM.
- For follow-up, the sample is taken at random in the factory or warehouse or at the point of sale.

#### 6.5.2.3 Certification scheme based on the quality control system of production lines

- It covers the production phase and is based on the type testing procedure, with evaluation and approval of the measures taken by the manufacturer for the quality control of the production lines.
- This certification scheme does not apply to second-hand, second line, discontinued, rebuilt, refurbished, and used electronic equipment or systems.
- The Certificate issued through this scheme is valid for up to three years and can be renewed for the same period, based on the result of the surveillance and corresponding renewal procedure.
- The quality control system of the production line must be evaluated annually by the certification body of quality control systems.
- During the validity of the Certificate of Conformity, the interested party must opt for one of the 2 surveillance options:
  - a) A follow-up with type tests, this must be carried out before the ninth month from the issuance of the Certificate of Conformity.
  - b) Two follow-ups with partial tests and testing a standard sample. The first follow-up must be carried out before the twentieth month and the second before the thirtieth month after the certificate of conformity is issued.
- Partial testing is applied to the equipment or system unless the equipment or system has made changes to the design originally certified (see Appendix F of the NOM).
- The sample is taken at random at the factory or point of sale (marketing: distributor or retailer). If there is no electronic equipment and/or system at the point of sale, a sample may be taken in the certificate holder's warehouses.

#### 6.5.2.4 Batch certification scheme

It covers the production and marketing phase with evaluation and approval of a batch of electronic equipment and/or systems with statistical sampling and identification of each electronic equipment or system of the batch.



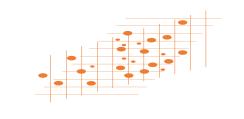
- This certification scheme applies to new, second line, discontinued, rebuilt, reconditioned, used or second-hand electronic equipment or systems.
- This certification scheme does not apply to, rebuilt, reconditioned electronic equipment or systems that have a reconstruction or reconditioning manual. When there is a reconstruction or refurbishment manual, it must comply with the requirements established in Appendix G of the NOM.
- The Certificate issued through this scheme is valid until the equipment and/or systems that make up the batch have been totally importing and/or marketing.
- The certificate must identify each of the serial numbers or identification data of the equipment and/or systems of the certified lot.
- The sampling of electronic equipment and/or system in the prior verification, must be subject to what is indicated in the Mexican Standard NMX-Z-12/2-1987, from which the Simple Sampling Plan for normal inspection will be taken as a basis and considering the following:
  - For new electronic equipment and/or systems, sampling must be done using a Special Inspection Level S-1 and an acceptable quality level (EQS) of 2.5.
  - For non-new electronic equipment and/or systems, sampling must be done using a Special Inspection Level S-3 and an acceptable quality level (EQS) of 2.5.
- In this scheme, follow-up is not considered unless there is a complaint evidencing non-compliance, or the authority requests that a verification be carried out on the electronic equipment and/or system.

#### <u>Technical Documentation Required by Scheme</u>

- A) For the certification scheme with follow up of electronic equipment or system at point of sale (marketing) or factory or warehouse, 6.5.2.1, submit the following information:
  - 1. Application
  - 2. Original and current report or opinion of laboratory tests according to the number of standard samples provided for in the applicable standard.
  - 3. Instructions and/or operation and/or service manuals.
  - 4. Photographs of the electronic equipment and/or system or the family of electronic equipment and/or systems.
  - 5. Technical specification sheet.
  - 6. Diagrams of all models (electrical, and/or block)
  - 7. If using battery eliminator or voltage adapter photocopy of battery specifications, or specification sheet and physical sample or photograph.
  - 8. Labeling with the electrical specifications of each of the models to be certified
  - 9. Declaration, in writing, under protest of telling the truth, in which the category of the product is stated.
  - 10. Letter of commitment in which the responsibility is indicated and assumed that the sample presented is representative of the electronic equipment and/or system to be certified.
- B) For the certification scheme with surveillance of electronic equipment or system at the point of sale (marketing) or factory or warehouse and the traceability system, 6.5.2.2, it presents the following information:
  - 1. As indicated in subparagraph (A)
  - 2. Report of the traceability system in accordance with Appendix D of the NOM.



- C) For the certification scheme based on the quality control system of the production lines, 6.5.2.3, submit the following information:
  - 1. As indicated in subparagraph (A)
  - 2. Design and manufacturing process information.
  - 3. Copy of the current quality systems certificate that includes the current scope of the production line, in which the manufacture of the products by certification, is included (issued by an accredited body)
  - 4. Report of the quality control system of the production lines in the terms indicated in Appendix C of the NOM (issued by a certification body of quality management systems)
  - 5. Information demonstrating that the system certification body has knowledge in the NOM and NMX referred to.
- D) For the batch certification scheme, 6.5.2.4, submit the following information:
  - 1. As indicated in subparagraph (A)
  - 2. Manual of the processes of reconstruction or reconditioning of the products, in case of rebuilt, reconditioned equipment.
  - 3. Letter on letterhead with the acknowledgment of persons and signatures that appear in the reconstruction or refurbishment manual.



### NOM-003-SCFI-2014, Electrical Products — Safety Specifications.

It applies to electrical products that use for their supply the electrical energy of the public service, as well as other energy sources, such as batteries, accumulators, and self-generation, in alternating current and/or direct current, with a nominal voltage up to 1000 V in alternating current and up to 1500 V in direct current.

The products covered by this NOM are divided into the following sections:

Section One: Electrical Appliances
Section Two: Household Appliances

Section Three: Power Tools

Section Four: Control and Distribution Equipment

Section Five: Luminaries

Section Six: Seasonal decorative products

Section Seven: Electric Toys



### **Certification Schemes**

#### 9.6.1 Certification scheme with product surveillance at the point of sale or in marketing

- The scheme is based on the type examination procedure.
- The validity of the certificates issued under this scheme is one year and can be renewed for the same period, based on the follow-up made to the initial certification;
- Under this product certification scheme, at least two follow-ups are carried out during the validity of the NOM certificate;
- When the certificate covers a family of products, a follow up is carried out on a representative model of the family, preferably different from the model evaluated in the initial or previous certification;
- The type sample is taken randomly in the marketing or at the point of sale, if there is no product at the point of sale, a type sample can be taken in the cellars of the certificate holder;
- The tests carried out in the follow-up are carried out in accordance with the provisions of NOM-003-SCFI-2014 for each NMX standard applicable to the product.

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#### 9.6.4 Certification scheme with product surveillance in factory or warehouse

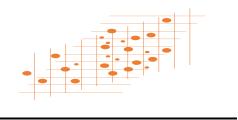
- The scheme covers the production phase and is based on the type examination procedure.
- It is based on type tests;
- The validity of the certificates issued under this scheme is one year and can be renewed for the same period, based on the follow-up made to the initial certification;
- The initial validity of the certificate issued under this scheme can be extended to two years if the following is met:
  - 1. That the holder of the certificate is constituted in accordance with Mexican legislation.
  - 2. That the certificate holder accredits a history of at least 5 (five) years in conformity processes without cancellations due to non-compliance with NOM.
- Under this product certification scheme, at least one follow-up is carried out during the validity of the NOM certificate;
- When the certificate covers a family of products, follow up is carried out on a representative model of the family, preferably different from the model evaluated in the initial or previous certification;
- The type sample is taken in the factory or cellar, randomly selected from the production or representative lot.
- The tests carried out in the follow-up are carried out in accordance with the provisions of NOM-003-SCFI-2014 for each NMX standard.

### **Technical Documentation Required by Scheme**

A) For the certification scheme with product surveillance at the point of sale or on the market, 9.6.1 submit the following information:



- 1. Application for certification services signed by the legal representative of the company or authorized person.
- 2. Original and valid laboratory test report according to the number of standard samples provided for in the applicable standard.
- 3. Instructions and or operation manual.
- 4. Photographs of all models.
- 5. Installation specifications (where applicable)
- 6. Technical Specification Sheet
- 7. Diagrams of all models (when applicable)
- 8. Labels with product marking.
- 9. List of essential components when applicable, when any of the standards described in chapter 7 of NOM-003, specify particular requirements for component.
- 10. Technical documentation necessary to analyze and trace the software that performs a security control function, if required by the product standard.
- 11. Product overview.
- 12. Standards applied in full or partially.
- 13. Commitment letter indicating and assuming responsibility for the fact that the type sample presented is representative of the product to be certified. The interested party will be responsible for reporting any changes to the product once it is certified.
- B) For the certification scheme with product surveillance in the factory or warehouse, 9.6.4 submit the following information:
  - 1. As indicated in subparagraph (A)
  - 2. Evaluation of the Homogeneity of production.
  - 3. Test Report of type samples of each of the factories to be included in the certificate.



### NOM-019-SCFI-1998 Safety of Data Processing Equipment

Applies to all peripheral data processing equipment or related equipment, which are marketed in the territory of the United Mexican States.



The requirements and test methods of this Standard apply but are not limited to the following products:

- 1. Electronic data processing machines, which are identified as portable (laptop, notebook, palmtop), microcomputers, personal systems, personal computers, computers for personal use, network terminals (Pcnet), servers or equivalent and that also meet the following two characteristics:
  - i. That they are uniprocessors.
  - ii. That use BUS-AT (ISA), or EISA, or MCA, or NUBUS, or BIOS, or PCI, or PCMI, or PMCIA, in all its current, future, or derived versions thereof, as their main operating BUS.
- Peripherals associated with the machines referred to in subparagraph (a) of this subparagraph, such as printers, graphers, external disk drives, external tape drives, pen tablets, image digitizers, optical readers, monitors, and terminals.
- 3. Equipment used for electronic communication between data processing equipment and peripheral equipment, local area networks (LAN), such as hubs, protocol converters or routers, etc., designed for the management of a single technology whose data BUS is not greater than 100 MBs, or that present any of the following characteristics:
  - i. That they are not of the modular type;
  - ii. That they do not have the ease of programming.

In the case of High Specialty Equipment (HSE – Highly Specialized Equipment), UL de México offers HSE opinion services. The issuance of this opinion does not grant any right to use the UL de México compliance mark, since it indicates that equipment units are excluded from the scope covered by NOM-019-SCFI-1998, in accordance with point 1.2 thereof.

### **Certification Schemes**

#### I. With verification by periodic testing of the product,

- It consists mainly of submitting the application and the current product test result report (no more than 90 days from the date of issue), together with the corresponding technical and legal documentation.
- ♣ The certificate is subject to annual verification (surveillance) and is valid for 1 year.
- Under this modality, extensions of ownership may be granted, at the request of the holder of the certificate, being responsible both the holder and to whom the extension is granted. Extensions of ownership are also subject to surveillance. The validity of the extension will be the same as the validity of the base certificate.

#### II. Verified by the production line quality management system

- ♣ Through this modality a certificate valid for 3 years can be obtained, as long as the factory has a quality management system certified under sector 19 of IAF by an accredited systems body and have the systems certification report regarding the verification procedure, which must have a maximum of ninety calendar days issued on the date on which the interested party submits the application.
- The certificate is subject to annual surveillance both by sampling and revision of the certificate of the quality system of the production line.
- To certify a product under this modality, it is required to carry out a prior inspection visit by UL in order to obtain the corresponding system certification report and, where appropriate, to carry out the product sampling itself that must be taken to the laboratory to obtain the required Test Result Report. This service



is performed only if the proposed quote is approved by the customer. This quote includes: Prior Inspection visit, product certification, routine site visit and analysis of results.

#### III. By product opinion for domestic or foreign manufacturer

- The certificate may be issued for those products that are to be distributed, marketed or imported into national territory by more than one distributor, trader or importer, but that are produced by the same national or foreign manufacturer.
- Where there is more than one factory for the same product, the manufacturer shall have at least one valid certificate of the quality assurance system for one of them and submit certification plans for the others within a period not exceeding two years.
- The certificates are subject to annual surveillance will be made on the products that are in the warehouses of the importers or in their points of commercialization in national territory.

#### V. Simplified NOM compliance certificate for border strip or region

It applies to products that are introduced to the northern border strip of the country. Products introduced into the border strip or region with the simplified certificate indicated above may in no case be redispatched to the rest of the country.

#### VI. From rebuilt articles

- Applies to those rebuilt products that have a reconstruction manual. Products must comply with the provisions of NOM-017-SCFI-1993 Commercial information labeling of rebuilt, used, or second-hand articles, second line, discontinued and out of specifications.
- This scheme is subject to annual surveillance.

#### VII. Of used or second-hand, second-line or discontinued articles

- It is a batch certification and applies to used or second-hand, second-line or discontinued products, or to rebuilt products that do not have a reconstruction manual neither the required technical information. Any certificate issued shall indicate the mark, model, serial numbers, or other individually identifiable information of the goods forming part of the registered lot.
- ♣ The products in this scheme must comply with the provisions of NOM-017-SCFI-1993 Commercial information labeling of rebuilt, used, or second-hand articles, second line, discontinued and out of specifications.
- ♣ These products shall also be subject to sampling and annual surveillance of product certification.
- ♣ Sampling is done in batch and in accordance with the NMX-Z-012 in force

#### VIII. From out-of-specification items.

- Applies to products out of specifications, all products to be certified are subjected to laboratory tests and the certificate will indicate the mark, model, serial numbers, or other individual identification data of the goods out of specifications.
- Out-of-specification products must comply with the provisions of NOM-017-SCFI-1993 Commercial information labeling of rebuilt, used, or second-hand articles, second line, discontinued and out of specifications.



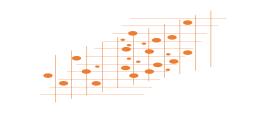
This scheme is subject to annual surveillance.

### **Technical Documentation Required by Scheme**

- A) For certification scheme I, with surveillance by periodic testing of the product, submit the following information:
  - 1. Application
  - 2. Original and valid laboratory test report or opinion according to the number of standard samples provided for in the applicable standard.
  - 3. Instructions and/or manuals for operation and/or service.
  - 4. Brochures or photographs of all models with a definition that allows the product to be identified.
  - 5. Installation specifications (where applicable).
  - 6. Technical specification sheet.
  - 7. Diagrams of all models (electrical, parts, exploded, functional, etc.)
  - 8. If using battery eliminator or rated voltage adapter photocopy of battery specifications, or specification sheet and physical sample or photograph.
  - 9. Product marking information (in accordance with applicable regulations). For products that have not been certified, a prototype label must be presented including and indicating the area in which the conformity marks will be affixed).
- B) For certification scheme II, surveillance through the Quality Management System of the production lines, submit the following information:
  - 1. What is indicated in point A
  - 2. Copy of the current quality systems certificate that includes scope (issued by an accredited body) and the certification plan for the other plants with a compliance period not exceeding 2 years (if applicable).
  - 3. Original or certified copy of the system certification report (42-IC-F0410, Annex D), issued maximum 90 calendar days before the delivery of the application, issued by a systems certification body accredited in the DL code of NACE sector 19 of IAF.
  - 4. Written statement from the manufacturer that the samples selected for the test report are representative of the production line.
  - 5. Form 42-IC-F0409, Prior inspection questionnaire.
- C) For certification scheme III, by product opinion for national or foreign manufacturer, submit the following information:
  - 1. What is indicated in point A
  - 2. Copy of the current quality systems certificate that includes scope (issued by an accredited body) and the certification plan for the other plants with a compliance period not exceeding 2 years (if applicable).
  - 3. Original or certified copy of the system certification report (42-IC-F0410, Annex D), issued maximum 90 calendar days before the delivery of the application, issued by a systems certification body accredited in the DL code of NACE sector 19 of IAF.
  - 4. Written statement from the manufacturer that the samples selected for testing are representative of the production line.
  - 5. Form 42-IC-F0409, Prior inspection questionnaire.
  - 6. Copy of product opinion for national or foreign manufacturer.
  - 7. Original of letter issued by national or foreign manufacturer that has product opinion for national or foreign manufacturer. (Form 42-IC-F0432).



- D) For the certification scheme V, Simplified certificate of compliance NOM for border strip or region, submit the following information:
  - 1. As indicated in subparagraph (A)
- E) For certification scheme VI, of rebuilt articles, submit the following information:
  - 1. As indicated in subparagraph (A)
  - 2. Product reconstruction manual.
  - 3. Letter from the reconstructive plant stating that it reconstructed the products.
  - 4. Form 42-IC-F0409, Prior inspection questionnaire.
  - 5. Statement from the manufacturer or reconstructive plant indicating compliance with commercial information in accordance with NOM-017-SCFI-1993
- F) For certification scheme VII, Of used or second-hand, second-line or discontinued items, submit the following information:
  - 1. Request for services
  - 2. Original and valid test report or opinion according to the number of standard samples provided for in the applicable standard, original, corresponding in force.
  - 3. Form 42-IC-F0409, Prior inspection questionnaire.
  - 4. Statement of the manufacturer or reconstructive plant indicating compliance with commercial information in accordance with NOM-017-SCFI-1993
- G) For certification scheme VIII, of out-of-specification items, submit the following information:
  - 1. As indicated in subparagraph (A)
  - 2. Form 42-IC-F0409, Prior inspection questionnaire.
  - 3. Manifest of the manufacturer or reconstructive plant indicating compliance with commercial information in accordance with NOM-017-SCFI-1993.



### NOM-058-SCFI-2017, Controllers for artificial light sources, for lighting purposes in general-Safety specifications and test methods

Applies to controllers for artificial light sources for general lighting purposes, including indoor, outdoor, and street lighting.

It also applies to controllers, depending on their usage and use properties, so it will apply regardless of the descriptive or design characteristics of the controller, or the artificial light source. By way of example but not



limitation, it applies to the controllers of the following technologies of light sources: discharge in gas, through light-emitting diode, semiconductor or solid-state element, or other artificial light source.

It is also applicable to lamp adapters as long as there is no specific Official Mexican Standard applicable to these controllers and is applicable to controllers operating at a voltage or supply voltage range up to 1 000 V a.c. (effective value) at 50 or 60 Hz, and up to 250 V d.c.

### **Certification Schemes**

#### 9.4. Certification scheme with controller surveillance in factory or warehouse

- The certification scheme with controller surveillance in the factory or warehouse, applies only to new controllers and is based on the type test procedure.
- The validity of the certificates issued under this scheme are valid for one year and can be renewed for the same period.
- 4 A follow-up with partial type testing, during the life of the certificate of conformity, by testing a type sample of the certified controller, is conducted.

#### 9.4.3 Certification scheme based on the quality management system

- This certification scheme applies only to new controllers and is supported in the registration of the quality management system of the controller manufacturer that include in its scope the manufacture of controllers and in the type test.
- The validity of these certificates is three years and can be renewed for the same period.
- 4 At least two follow-ups are made, with total type tests in the last follow-up and a review of the audit report of the quality systems certification body in the previous visits, during the validity of the certificate of conformity.

### Documentación Técnica Requerida Por Esquema

A) For the scheme of surveillance the controller in factory or warehouse, 9.4.2, submit the following information:

- 1. Application
- Original and valid test report according to the number of standard samples provided in the applicable standard.
- 3. Brochure, datasheet or photographs with the image of the driver of all models.
- 4. Product label or marking (in accordance with current applicable regulations).
- 5. Written statement on the construction of the controller with at least the following:
  - Caliber, material,m and thermal class of the conductors used
  - Capacitance and capacitor voltage for fp correction (if applicable)
  - Compatible ignite model (if applicable)
  - Gauge and thermal class of the connection tips used (if applicable)

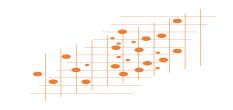
Page 14 of 17



- Thermal class of the insulation system
- Dimensions and material of the envelope.
- 6. Test report on NMX-J-510-ANCE-2011 (high current discharge (DAI) only and if declared to be high efficiency or low losses)
- 7. Specification sheets of complementary devices, such as voltage adapters, battery eliminators, etc.

B) For the certification scheme based on the quality management system, 9.4.3, submit the following information:

- 1. As indicated in subsection (A)
- 2. Copy of the current quality systems certificate including scope (issued by an accredited body)



### NOM-063-SCFI-2001 Electrical Products – Wire and Cable – Safety Requirements

Applies to the types of electrical conductors grouped into the following sections:

SECTION I. Bare copper conductors SECTION II. Bare aluminum conductors SECTION III. Conductors with thermoplastic insulation based on polyvinyl chloride, for installations up to 600 ٧ SECTION IV. Polyethylene insulated wires and cables for low-voltage outdoor installations and multiconductor cables for low-voltage overhead distribution SECTION V. Low voltage power cables with cross-chain or ethylene-propylene-based polyethylene insulation for installations up to 600 V **SECTION VI.** 75°C polyvinyl chloride insulated cables for panel wiring **SECTION VII.** 105°C PVC insulated wires and cords for electronic uses SECTION VIII. Control cables and multiconductor and monoconductor power cables, non-fire spreaders, low smoke emission and halogen-free up to 600 V and 90°C



**SECTION IX.** Spiral concentric cables for low voltage overhead connection

**SECTION X.** Electrode cable for electric welders

**SECTION XI.** Duplex conductors (TWD) with thermoplastic insulation for installations up to 600 V and 60°C

SECTION XII. SPT type flexible cords with thermoplastic insulation based on polyvinyl chloride for installations

up to 300 V for 60°C, 75°C, 90°C and 105°C

**SECTION XIII.** Flexible cords for rough (up to 300 V) and extra-rough (up to 600 V) use

SECTION XIV. Control cables with thermoplastic or thermosetting insulation for low voltage

**SECTION XV.** Cables for power supply of submersible pumps for deep well in installations up to 1000 V

### **Certification Schemes**

#### I. Verified by periodic product testing

- Lt consists mainly of submitting the application and the current product test result report (no more than 90 days from the date of issue), together with the corresponding technical and legal documentation.
- The certificate is subject to annual verification (monitoring) and is valid for 1 year.
- Under this modality, extensions of ownership may be granted, at the request of the holder of the certificate, being responsible both the holder and to whom the extension is granted. Extensions of ownership are also subject to surveillance. The validity of the extension will be the same as the validity of the base certificate.

### II. With verification through the quality management system of the production line.

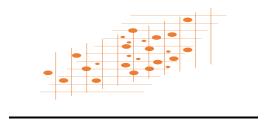
- Through this modality a certificate valid for 3 years can be obtained, as long as the factory has a quality management system certified under sector 19 of IAF by an accredited systems body.
- ♣ To certify a product under this modality, it is required to carry out a prior inspection visit by UL in order to obtain the corresponding system certification report and, where appropriate, to carry out the product sampling itself that must be taken to the laboratory to obtain the required Test Result Report. This service is performed only if the proposed quote is approved by the customer. This quote includes: Prior Inspection visit, product certification, routine site visit and analysis of results.

#### **Technical Documentation Required By Scheme**

- A) For certification scheme I, with verification by periodic testing of the product, submit the following information:
  - 1. Request for services
  - 2. Report or opinion of laboratory tests according to the number of standard samples provided for in the applicable standard, original, in force corresponding.
  - 3. Brochures or photographs of all models with a definition that allows the product to be identified.
  - 4. Installation specifications (where applicable).
  - 5. Technical specification sheet or technical information to identify, type of conductor, type of insulation, application and/or use.



- 6. Product marking information (in accordance with applicable regulations in force ). For products that have not been certified, a prototype label must be presented including and indicating the area in which the conformity marks will be affixed).
- B) For certification scheme II, with verification through the Quality Management System of the production lines, submit the following information:
  - 1. What is indicated in point A
  - 2. Copy of the current quality systems certificate that includes scope (issued by an accredited body) and the certification plan for the other plants with a compliance period not exceeding 2 years (if applicable).
  - 3. Original or certified copy of the system certification report (42-IC-F0410, Annex D), issued maximum 90 calendar days before the delivery of the application, issued by a systems certification body accredited in the DL code of NACE sector 19 of IAF.
  - 4. Written manifest from the manufacturer that the samples selected for the test report are representative of the production line.
  - 5. Form 42-IC-F0409, Prior inspection questionnaire.



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