



**Federal Law of the Russian Federation of December 27, 2009
N 347-FZ "Technical regulation on safety of low-voltage equipment"**

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Part I

Safety of low-voltage equipment

Chapter 1. General provisions

Статья 1. Scope of application of this Federal Law

1. This Federal Law has been adopted to protect the life or health of citizens, property of natural or legal persons, the state or municipal property, environment, life or health of animals and plants, the preventive actions against misleading purchasers of low-voltage equipment, provision of energy efficiency based on the need of absence of unacceptable risk of injury when placing low-voltage equipment on the market of the Russian Federation.

2. This Federal Law sets the mandatory requirements for application and compliance of low-voltage equipment placed on the market of the Russian Federation (hereinafter –“safety requirements”), marking of low-voltage equipment, accompanying documents, which include the rules for safe operation and (or) disposal of low-voltage equipment and establish provisions relating to the conformity assessment of low-voltage equipment, as well as provisions relating to the preventive actions against misleading the purchasers of low-voltage equipment. .

3. This Federal Law doesn't establish safety requirements to the processes of design, manufacture, installation, setting up, operation, storage, transportation, marketing and disposal of low-voltage equipment on the territory of the Russian Federation.

4. Safety requirements for certain types of low-voltage equipment can be established by the respective technical regulations. These requirements must not conflict with the safety requirements established by this Federal Law.

Article 2. Basic definitions used in the present Federal Law

For the purposes of this Federal Law, the basic definitions set out in Article 2 of the Federal Law of 27 December 2002 N 184-FZ "On technical regulation" and the following basic concepts are

used:

- 1) electrical equipment - a set of related electrical products, located in a constructive and (or) functional unity, or a separate electrical device designed to perform a specific function for production or transformation, transmission, distribution or consumption of electrical energy;
- 2) low-voltage equipment - electrical equipment or its components, characterized by features referred to in Article 3 of this Federal Law;
- 3) electromagnetic interference - electromagnetic phenomenon, a process that reduces or may reduce the quality of the operation of a technical device;
- 4) electromagnetic environment - the totality of electromagnetic phenomena, processes in a given place of space, frequency and time ranges;
- 5) chemical current sources - devices that produce electricity by direct energy conversion of a chemical reaction into electrical energy.

Article 3. Object of technical regulation of this Federal Law

1. The object of the technical regulation of the Federal Law is low-voltage equipment. It refers to electrical equipment, which is characterized as follows:

- 1) equipment operates at nominal voltage from 50 to 1500 VDC inclusive;
- 2) equipment operates at nominal voltage from 50 to 1000 VAC inclusive with frequency of alternating current to 1000 Hz inclusive;
- 3) equipment operates at a nominal value of DC voltage or at a nominal peak value of AC voltage to 50 volts, provided that in case of equipment failure the product of the voltage at the open-circuit and the value of measured strength of the electric current which will flow through the circuit with the possible malfunction, exceeds 15 volt-amperes;
- 4) equipment related to chemical batteries.

2. Low-voltage equipment also includes power supplies built in communication facilities.

3. This Law doesn't cover the following types of low-voltage equipment:

- 1) low-voltage equipment intended for explosive atmospheres;
- 2) radiological equipment;
- 3) electrical components of lifts and elevators;
- 4) electrical installations except their components;
- 5) medical equipment;
- 6) low-voltage equipment designed and manufactured for ships and river boats, off-shore and river platforms (except equipment intended for drilling and technological purposes, space and

aircrafts, railway and transport facilities;

7) communication facilities;

8) low-voltage equipment for defense supplied for the federal state needs under the state defense contract; low-voltage equipment used for protection of information constituting the state secret or other information of restricted nature as well as low-voltage equipment constituting the state secret.

Article 4. Identification of low-voltage equipment

1. For the purposes of implementation of this Federal Law low-voltage equipment should be identified.

2. For purposes of this Federal Law the identification of low-voltage equipment (hereinafter – the “identification”) refers to establishing the identity of the characteristics of the equipment features of low-voltage equipment, established by Article 3 of this Federal law, as well as the requirements of the accompanying documents for the low-voltage equipment (hereinafter - “accompanying documents”) referred to in Article 7 of this Federal law.

3. When declaring compliance with low-voltage requirements of this Federal law, the identification is to be carried out by an applicant, who must be a manufacturer of low-voltage equipment, registered in accordance with RF legislation on its territory as a legal entity or an individual entrepreneur or a person acting as a foreign manufacturer under a contract with him in part to ensure that the supplied products comply with the requirements of this Federal Law and in part of responsibility for the inconsistency of the supplied products with the requirements of this Federal Law.

4. When certifying low-voltage equipment (hereinafter – “the certification”) the identification is to be performed by a certification body.

5. In exercising the state control (supervision) over compliance of low-voltage equipment with the requirements of this Federal Law the identification is to be performed by the federal executive body, authorized to carry out the state control (supervision) over observance of mandatory requirements for low-voltage equipment, its territorial agencies.

6. For the identification purposes international and national standards can be used as well as corporate standards, Codes of rules and classifiers used in the established manner, All-Russia classifiers of technical, economic and social information.

Статья 5. Information of purchasers of low-voltage equipment

1. Low-voltage equipment must be accompanied by adequate and reliable information to ensure its safe installation, operation, disposal (in case of special requirements as to the safety of disposal processes of specific types of low-voltage equipment).

2. Information on low-voltage equipment must be affixed to the equipment and (or) in the accompanying documents, attached directly to low-voltage equipment.

Статья 6. Marking of low-voltage equipment

1. Low-voltage equipment, placed on the market on the territory of the Russian Federation, must be provided with legible, easy to read marking placed in accessible location for inspection, indelible for a specified period of service of low-voltage equipment. If marking on low-voltage equipment is not possible, it must be affixed to its packing.

2. Marking of low-voltage equipment shall contain the following information in Russian relating to low-voltage equipment as follows :

- 1) name, type, model, modification, trade name (if available);
- 2) name, trademark or trademark of a manufacturer or a supplier (if any) ;
- 3) name of a country-manufacturer;
- 4) mark of market access;
- 5) nominal rated voltage or voltage range ;
- 6) symbol type of electric current or nominal frequency of AC ;
- 7) degree of protection against ingress of solid particles and moisture, provided by a protective shell, except low-voltage equipment having no protection from moisture ;
- 8) symbols of security and disposal methods for chemical power sources;
- 9) class of energy efficiency for the types of low-voltage equipment as defined by the RF Government.

3. Marking of low-voltage equipment should contain the following information on classes of protection against electric shock:

- 1) class I - equipment with basic insulation and elements for joining the open conductive parts to the protective conductor of electrical installation;
- 2) class II - equipment with double or reinforced insulation and having no elements to join the open conductive parts to the protective conductor of electrical installation.

4. Marking of low-voltage equipment, not related to classes I and II may not contain information on classes of protection against electric shock.

Article 7. Accompanying documents

1. The accompanying documents must contain the following information as regards low-voltage equipment:

- 1) information referred to in paragraphs 2 and 3 of Article 6 of this Federal Law;
- 2) purpose of low-voltage equipment or scope of its application;
- 3) information about the rules and conditions for safe storage, transportation, operation, maintenance, repair, recovery, disposal (in case of special requirements to disposal processes of

low-voltage equipment);

4) basic consumer properties or characteristics;

5) information on the certificate of conformity or the declaration of conformity of low-voltage equipment in respect to the requirements of this Federal Law (hereinafter - the “declaration of conformity”);

6) trade name and location (address) of a manufacturer and (or) a seller;

7) information on the actions to be undertaken in case of malfunction of low-voltage equipment;

8) information on special security arrangements for commissioning, transportation, storage of low-voltage equipment (in case of relevant requirements for specific types of low-voltage equipment);

9) date of manufacture of low-voltage equipment;

10) information on compliance of low-voltage equipment with any of the documents specified by part 6, Article 4 of this Federal Law...

2. Information provided for in the accompanying documents must be reliable.

Chapter 2. Requirements to low-voltage equipment

Article 8. Requirements to low-voltage equipment

1. Low-voltage equipment under the conditions of operation specified in the accompanying documents, must meet the following requirements:

1) low-voltage equipment must be designed and constructed to provide in operation the correct and reliable connection to power supply or other power source in order to ensure that there are no inadmissible risks when connecting and (or) assembling;

2) the required level of protection for man and animals against electric shock, injury or causing other harm is to be ensured in direct or indirect contacts with low-voltage equipment;

3) low-voltage equipment must not create inadmissible risks of a dangerous rise in temperature, electric arc discharge or radiation, resulting in injury;

4) low-voltage equipment shall ensure absence of inadmissible risk to endanger life or health of citizens, property of natural and legal persons, the state or municipal property, environment, life or health of animals and plants arising from the harmful effects of non-electrical origin;

5) the level of insulation protection of low-voltage equipment must meet the specified load;

6) movable parts of low-voltage equipment, which may cause injury, must be protected and shielded in such a way as to protect the user from any possible injury;

7) the level of stability of low-voltage equipment to affecting external factors of mechanical and non- mechanical nature under appropriate climatic conditions of the environment must exclude

the possibility of injury;

8) the level of mechanical and switching durability and corrosion resistance must ensure the safe operation of low-voltage equipment subject to conditions specified in the accompanying documents;

9) low-voltage equipment mustn't be a source of fire, subject to conditions specified in the accompanying documents, in emergency mode and under improper operation;

10) low-voltage equipment mustn't explode under operation specified in the accompanying documents, in emergency operating modes and under improper operation. In the presence of volatile components low-voltage equipment should have additional protection from the consequences of the explosion of such components;

11) low-voltage equipment must be safe in the event of an overload of low-voltage equipment, subject to conditions specified in the accompanying documents;

12) the level of electromagnetic interference from low-voltage equipment mustn't disrupt other equipment subject to the conditions specified in the accompanying documents;

13) low-voltage equipment must be resistant to electromagnetic interference in its operation in accordance with the purpose in electromagnetic environment ;

14) chemical power sources, which include toxic and flammable substances, must be sealed and remain hermetic subject to the operating conditions specified in the accompanying documents. If a sealed source is impossible, its safe use must be ensured by additional means of protection;

15) low-voltage equipment must be energy efficient, i.e. have a particular ratio value of useful effect of the use of electrical energy to the cost of electricity produced in order to obtain this effect, low-voltage equipment must also contain information about energy efficiency in the technical documentation supplied with this equipment; in its marking and labels. The types of low-voltage equipment covered by this requirement shall be established by the RF Government.

2. To comply with the safety requirements for low-voltage equipment, established by this Article, national standards and (or) Codes of rules may be used from the list approved and published by standardization body of the Russian Federation in the order established by legislation of the RF Government.

3. To meet the safety requirements of this Article other documents may be used.

Chapter 3. Conformity assessment of low-voltage equipment in respect to the requirements of this Federal Law

Article 9. Forms of conformity assessment of low-voltage equipment

1. Conformity assessment of low-voltage equipment in respect to the requirements of this Federal Law (hereinafter - the "conformity assessment") shall be conducted in the forms of mandatory conformity assurance of low-voltage equipment and the state control (supervision).

2. Deadlines for conformity assessment procedures should not exceed three months.

Article 10. **Mandatory conformity assurance of low-voltage equipment**

1. Mandatory conformity assurance of low-voltage equipment in respect to the requirements of this Federal Law (hereinafter – “mandatory conformity assurance”) is to be conducted in the form of :

- 1) adoption of the declaration of conformity (hereinafter – the “declaration of conformity”);
 - 2) mandatory certification.
2. The procedure of mandatory conformity assurance is to be established by the RF Government.
3. The declaration of conformity shall be in accordance with the present Federal Law and other legislative acts of the Russian Federation on technical regulation, taking into account the risk groups and national standards and (or) Codes of rules to be applied on a voluntary basis to meet the requirements of this Federal Law.
4. In the case of non-use of national standards to meet the requirements established by Article 8 of this Federal Law, the certification body should ensure that the documents used for these purposes allow establishing compliance of low-voltage equipment with the specified requirements.
5. For mandatory conformity assurance low-voltage equipment is classified according to risk level into three risk groups or considered as irrelevant to any of this risk groups. Upwards numbering corresponds to risk level increase.
6. The following basic criteria for risk groups are used for rating low-voltage equipment;
- 1) number of safety requirements imposed for a specific type of low-voltage equipment;
 - 2) number of units of a specific type of low-voltage equipment placed on the market on the territory of the Russian Federation;
 - 3) level of qualifications of persons, who may use a respective type of low-voltage equipment;
7. lists of low-voltage equipment related to each risk group are to be approved by the RF Government;
8. conformity assurance of low-voltage equipment not related to any risk group is to be conducted in any form and under any scheme in accordance with the requirements of Articles 11, 12 and 14 of this Federal Law;

Article 11. **Declaration of conformity**

1. The declaration of conformity of low-voltage equipment produced in series is to be performed under one of the following schemes:

- 1) scheme 1d – adoption of the declaration of conformity on the basis of own proofs;
- 2) scheme 2d – adoption of the declaration on the basis of own proofs, prepared with participation of the accredited testing laboratory (center) under a contract;

- 3) scheme 3d – adoption of the declaration of conformity on the basis of own proofs, prepared with participation of the accredited testing laboratory (center) under a contract, a certificate of quality system issued in respect of quality system, relating to control and testing of low-voltage equipment in production;
 - 4) scheme 4d – adoption of the declaration of conformity on the basis of own proofs, prepared with participation of the accredited testing laboratory (center) under a contract, a certificate of quality system.
2. Scheme 1d is used to demonstrate compliance of low-voltage equipment, not relating to any group of risk.
 3. Schemes 2d, 3d and 4d are used to demonstrate compliance of low-voltage equipment relating to any group of risk.
 4. The applicant has the right to choose the scheme of the declaration of conformity in view of the provisions of this Article.
 5. When declaring compliance with scheme 1A, the applicant shall prepare the evidential material for conformity assurance of low-voltage equipment in respect to the requirements of this Federal Law
 6. As evidence materials the applicant may use:
 - 1) test report as to compliance with the requirements of international and national standards;
 - 2) test reports as to compliance with the requirements of technical specification;
 - 3) test reports as to compliance with standards of organization;
 - 4) protocols of test performed by the applicant;
 - 5) certificates of quality system;
 - 6) other documents and information, which allow, according to the applicant, to establish compliance of low-voltage equipment with the requirements of this Federal Law.
 7. Validity of the declaration of conformity under scheme 1D may not exceed one year from the date of registration of the declaration in accordance with RF legislation on technical regulation
 8. When declaring compliance under scheme 2d, the applicant in addition to its own proofs, formed in the manner prescribed by item 6 of this Article, shall include in the proofs protocols of researches (tests) and measurements of low-voltage equipment performed by the accredited testing laboratory (center).
 9. The term of validity of researches (tests) and measurements of low-voltage equipment can't exceed half the term of the declaration of conformity on the date of its registration.
 10. The term of validity of the declaration of conformity under scheme 2d can't exceed from the date of its registration in accordance with RF legislation on technical regulation:

- 1) for low-voltage equipment rated as the first group of risk - one year;
- 2) for low-voltage equipment rated as the second group of risk - nine months;
- 3) for low-voltage equipment rated as the third group of risk - six months.

11. When declaring compliance under scheme 3d, the application in addition to its own proofs, formed in a manner prescribed by items 8 and 9 of this Article^a, shall submit a certificate of quality system related to control and testing of low-voltage equipment in production, issued in accordance with national standards. Control (supervision) in respect of a certificate of quality system related to control and testing of low-voltage equipment in production^b shall be performed by the certification body that has issued this certificate.

12. The term of validity of the declaration of conformity under scheme 3d should not exceed three years from the date of registration of the declaration in accordance with RF legislation on technical regulation.

13. When declaring compliance under scheme 4d, the application in addition to its own proofs formed in a manner prescribed by items 8 and 9 of this Article, shall submit the certificate of quality issued in accordance with national standards. Control (supervision) in respect of the certificate of quality shall be performed by the certification body that issued this certificate.

14. The term of validity of the declaration of conformity under scheme 4d should not exceed five years from the date of registration of the declaration in accordance with RF legislation on technical regulation.

15. The accredited laboratory (center) shall perform researches (tests) and measurements of low-voltage equipment on the basis of a contract with the applicant declaring compliance. As a result of researches (tests) and measurements of low-voltage equipment the accredited testing laboratory (center) is to present to the applicant a report on conducted researches (tests) and measurements of low-voltage equipment.

Article 12. **Mandatory certification of low-voltage equipment**

1. Mandatory certification of low-voltage equipment produced in series is to be performed under one of the following schemes:

- 1) scheme 1c - certification on the basis of research results (tests) and measurements of low-voltage equipment;
- 2) scheme 2c - certification on the basis of research results (tests) and measurements of low-voltage equipment, certificate of quality system related to control and testing of low-voltage equipment in production, issued in accordance with national standards;
- 3) scheme 3c - certification on the basis of research results (tests) and measurements of low-voltage equipment, certificate of quality system, issued in accordance with national standards.

2. The applicant, who may be a manufacturer, a seller or a person executing functions of a foreign manufacturer, may choose the certification scheme for low-voltage equipment in view of the provisions of this Article.

3. Under certification scheme 1c the inspection control is to be carried out by researches (tests) and measurements of a sample of low-voltage equipment, selected on the basis of the rules of sampling, established by RF legislation on technical regulation.

4. Under certification scheme 2c the inspection control is to be carried out in respect of the certificate of quality system relating to control and testing of low-voltage equipment in production, issued in accordance with national standards.

5. Under certification scheme 3c the inspection control is to be carried out in respect of the certificate of quality, issued in accordance with national standards.

6. The compliance of low-voltage equipment with the requirements of this Federal Law is to be confirmed by the certificate of conformity handed to the applicant by the certification body (hereinafter – the “certificate of conformity”).

7. Validity of the certificate of conformity is five years.

8. The certification body shall:

1) for researches (testing) and measurements of low-voltage equipment recruit on a contractual basis the accredited testing laboratories (centers) in the order, established by RF legislation on technical regulation.

2) carry out the inspection control to verify conformity of low-voltage equipment to the requirements of this Federal Law in accordance with the selected certification scheme and the conditions of the contract concluded with the applicant. In case of positive results of the inspection control the decision may be taken to extend the validity of the certificate of conformity;

3) inform the authorities of the state control (supervision) on low-voltage equipment, which failed to pass the certification;

4) provide the applicant with a report on the conducted tests at the end of the procedure of the conformity assurance;

5) perform other functions stipulated by RF legislation on technical regulation.

Article 13. Recognition of foreign certificates of conformity

1. The Russian Federation recognizes the certificates of conformity issued by the certification bodies of international certification systems, with which the Russian Federation or the federal executive body, authorized by the RF Government on the basis of international agreements, has agreements on the recognition of the results of certification (hereinafter – the “foreign certificates of conformity”). The list of international certification systems, which entered into such agreements, and the list of the certification bodies for certification of international certification systems that have the right to issue certificates of conformity are placed on the official website of the federal executive body on technical regulating.

2. If for the recognition of foreign certificates of conformity on the territory of the Russian Federation in accordance with international treaty of the Russian Federation it is foreseen to pass the national procedures, the duly accredited certification body shall:

- 1) perform the identification;
- 2) ascertain the presence of a relevant agreement for recognition of the submitted foreign certificate of conformity, as well as availability of the necessary powers of the certification bodies, issued the foreign certificate of conformity;
- 3) conduct an analysis of relevant information contained in the documents submitted for the recognition of a foreign certificate of conformity to the certification body in respect of the requirements of this Federal Law;
- 4) verify the timing of the documents submitted, availability of changes to the design of low-voltage equipment, check the test protocols, under which a foreign certificate of conformity has been issued;
- 5) determine the necessary volume of additional tests to be conducted by the accredited laboratories (centers), organize additional tests under a contract with the applicant; 6) carry out other actions in accordance with RF legislation on technical regulation.

3. The additional tests required by paragraph 5 of Part 2 of this Article shall be the minimum necessary for the mandatory conformity assessment.

4. As a result of works on the recognition of a foreign certificate of conformity under item 5, Part 2 of this Article, the applicant receives the certificate of conformity in respect with the requirements of this Federal Law.

Article 14. Aspects of conformity assurance of low-voltage equipment

1. By batch of low-voltage equipment is understood the identified volume of homogenous products manufactured under the same technological conditions.

2. The mandatory conformity assurance of a batch of low-voltage equipment is carried out in a form of the declaration of conformity with risk-based scheme 1d or 2d or in a form of certification under scheme 1c.

3. The declaration of conformity and the certificate of conformity of a batch of low-voltage equipment apply only to low-voltage equipment related to a particular batch.

Article 15. Application of the mark of market access

1. Marking of products for which safety requirements are established by this Federal Law, the mark of market circulation is carried out by a manufacturer, a seller or a person who performs the functions of a foreign manufacturer, if its compliance with the requirements of technical regulations is confirmed in the order established by RF legislation on technical regulation .

2. The mark of market access is applied on low-voltage equipment and (or) its packing and on the introduction-pages of the accompanying documents. The mark of market access shall be visible and legible for a life time of low-voltage equipment.

3. Low-voltage equipment, which fails to comply with the requirements of this Federal law, should not be marked with the mark of market access.

4. Low-voltage equipment with no mark of market access affixed to this low-voltage equipment in accordance with the requirements of Part 2 of this Article can't be released into circulation on the territory of the Russian Federation.

Article 16. Bodies of the state control (supervision) over observance of requirements of this Federal Law. The principles and forms of the state control (supervision)

1. The state control (supervision) over observance of the requirements of this Federal Law is to be performed by the federal executive body, authorized to perform the state control (supervision) over observance of mandatory requirements for low-voltage equipment, its territorial agencies.

2. The state control (supervision) over observance of the requirements of this Federal Law shall be in accordance with the Federal Law of December 26, 2008 N 294-FZ "On protection of the rights of legal persons and individual entrepreneurs in exercising the state control (supervision) and municipal control" only at the stage of placing low-voltage equipment on the market.

3. The state control (supervision) over observance of the requirements of this Federal Law is performed by :

1) visual control;

2) instrumental control.

4. By visual control the presence of marking of low-voltage equipment and its compliance with the requirements of this Federal Law are checked.

5. By instrumental control with testing (measurements) the compliance of the low-voltage equipment with the requirements of this Federal Law is established with the help of sampling and testing (measurements) in accordance with the rules and procedures established by national standards, included in the list of national standards, approved by the RF Government, or on the basis of the rules and methods approved by the RF Government.

6. In the case of detection of violations of the requirements of this Federal Law the federal executive body, which is authorized to perform the state control (supervision) over observance of mandatory requirements for low-voltage, its territorial bodies may:

1) issue orders to eliminate violations and establish reasonable deadline for their elimination taking account of the nature of violations;

2) undertake measures prescribed by RF legislation to prevent harm to life and health of citizens, property of natural or legal persons, the state or municipal property, environment, life or health of animals and plants;

3) inform the bodies that issued the certificate of conformity or agencies that registered the declaration of conformity about the necessity to suspend or terminate the declaration of conformity or the certificate of conformity;

4) make liable a manufacturer, a seller or a person executing the functions of a foreign manufacturer under RF legislation;

5) decide on juridical recourse about forced recall of low-voltage equipment not in conformity with the requirements of this Federal Law;

7. For conformity assessment or mandatory conformity assurance no other documents should be demanded from a manufacturer, a seller or a person performing the functions of a foreign manufacturer than those mentioned in Articles 11 and 12 of this Federal Law.

Part II

Final provisions

Article 17. Use of normative legal acts of the Russian Federation and other documents in connection with the entry into force of this Federal Law

Since the entry into force of this Federal Law:

1) the provisions of normative legal acts of the federal executive bodies, establishing mandatory requirements to low –voltage equipment are to be applied to the extent not inconsistent with this Federal Law;

2) the certificates of conformity issued for low-voltage equipment prior to the entry into force of this Federal Law are valid within the time specified in these certificates.

Article 18. Responsibility for violation of the requirements of this Federal Law

For violation of the requirements of this Federal Law a manufacturer, a seller or a person executing functions of a foreign manufacturer and the certification body shall be responsible in accordance with RF legislation.

Article 19. Entry into force of this Federal Law

1. This Federal Law shall enter into force one year after its official publication.

2. The Government of the Russian Federation shall issue normative legal acts prescribed by this Federal Law within six months after its official publication.

President of the Russian Federation

D. Medvedev