



**SLOVENSKI STANDARD**  
**SIST ES 59004:2002**  
**01-september-2002**

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**Qualification of electrical installation contractors**

Qualification of electrical installation contractors

**iTeh STANDARD PREVIEW**  
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**ICS:**

03.100.30	Vodenje ljudi	Management of human resources
29.020	Elektrotehnika na splošno	Electrical engineering in general

**SIST ES 59004:2002**

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EUROPEAN SPECIFICATION  
SPÉCIFICATION EUROPÉENNE  
EUROPÄISCHE SPEZIFIKATION

**ES 59004**

March 1998

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English version

## Qualification of electrical installation contractors

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This European Specification was approved by CENELEC on 1998-01-23.

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## CENELEC

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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## Foreword

This European Specification has been prepared by the Technical Committee CENELEC TC 218, Qualification of electrical installation contractors.

It was submitted to the vote during the meeting of TC 218 and approved by CENELEC on 1998-01-23.

The following date was fixed:

- latest date by which the existence of the ES has to be announced at national level (doa) 1998-05-01

This specification has been drawn up further to the Mandate M/084 of the European Commission and the related correspondence between the President of CENELEC and Directorate General III of the European Commission, dated 1995-07-05 and 1995-08-29.

The principles which have prevailed during the standardization are recalled hereafter:

- The system of qualification is intended to permit the recognition of the ability of the construction enterprise in the area covered by CENELEC to carry out work in accordance with their speciality. It shall, in consequence, permit the relevant procurement entities to know the profile of the contractor and shall be considered as a tool of assistance to the decision when selecting the contractors for a specific procurement. It is not intended to cover the final selection process for specific contracts which will take place after the qualification procedure.
- The system of qualification is meant to be used within the frame of Directive 93/37/EEC.

This European Specification is preliminary to further negotiation with CEN for the final publication of a coherent CEN-CENELEC standard on qualification of construction enterprises as mandated by the European Commission.



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## 1 Scope

The present European Specification (ES) defines the harmonized rules and criteria for the European qualification of electrical installation contractors.

It includes both general requirements, for a body operating such a qualification system to be recognized as competent and reliable in that field, and for applicants making use of it, irrespective of the sector involved.

## 2 Normative references

This European Specification incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 45020            1996    General terms and their definitions concerning standardization and related activities (ISO/IEC Guide 2:1996)

## 3 Terminology

For the purpose of this specification, the relevant definitions contained in EN 45020 (ISO/IEC Guide 2) apply, as well as the following definitions:

### 3.1 contractor:

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Enterprise carrying out electrical installation works and activities for which it wishes to be qualified.

### 3.2 qualification:

Procedure based on a set of rules leading to the formal assessment of a contractor against a set of criteria including administrative, legal, financial, human resources and technical skills.

### 3.3 selection:

Process for selecting from a list of qualified contractors for a specific project tender list.

### 3.4 categories:

Types of works.

### 3.5 general contracting:

Work carried out by a general contractor.

### 3.6 general contractor:

A contractor who in addition to carrying out the electrical works for which he is qualified, has the ability to co-ordinate other qualified contractors to deliver part or all of a project.

### 3.7 qualification body:

The party that performs the evaluation of a contractor and grants the qualification according to this European Specification.

### 3.8 declaration of qualification:

A document issued by a qualification body to state the compliance of a contractor with the criteria of the European Specification.

## 4 Work categories and classification

### 4.1 Work categories

#### 4.1.1 Electrical installations up to 1 kV

- A1 Electrical installation in buildings and industrial installations
- A2 Security and CCTV systems
- A3 Fire alarm systems
- A4 Control system installations for industrial process control
- A5 Underground cable network for power distribution, public lighting and traffic control (including electrical connection)
- A6 Overhead lines for power distribution, public lighting and traffic control (including electrical connection)

#### 4.1.2 Electrical installations above 1 kV up to 36 kV

- B1 Industrial installations
- B2 Overhead power lines (including electrical connections)
- B3 Underground cable networks for power distribution (including electrical connection)
- B4 Public lighting installations

#### 4.1.3 Electrical installations above 36 kV

- C1 Industrial installations

#### 4.1.4 Communication installations

- D1 Communications systems in buildings and industrial installations
- D2 Computers network and peripheral equipment installation
- D3 Communications infrastructural installations
- D4 Overhead communications infrastructures cabling
- D5 Underground communications infrastructures cabling

#### 4.1.5 Extensions

The two following extensions can be granted to any of the above categories:

- E1 Installations in hazardous areas
- E2 General contracting



For extension E2 (general contracting), prior qualification in one or more categories (A through D) is required

A detailed description of each work category and of each extension is given in Annex A.

## 4.2 Work classification

The European Specification does not provide a work classification system, but gives information on the size of the qualified contractor and on his technical capabilities to allow each contracting entity to select, from the qualified contractors list, the appropriate candidates for a particular project.

The information to be made available for each qualified contractor is the following:

### 4.2.1 General information

- number of permanent employees (average of the last three years):
  - type A (Directors/Senior Management),
  - type B (Professional/Technical staff),
  - type C (Qualified supervisors),
  - type D (Administrative staff),
  - type E (Operatives);
- global turnover in works of the last three years;
- global turnover in electrical installation works of the last five years;
- the amounts of the three biggest contracts in electrical installation works of the last five years;

### 4.2.2 Information related to the category

- turnover in works performed in the category of the last five years;
- systems design, included or not included.

The above information (4.2.1 and 4.2.2) will be included in the directory of qualified contractors referred to in 6.1.5.3.

### 4.2.3 Additional information

- % of global turnover in electrical installation works sublet in the last three years

The above information (4.2.3) will not be included in the directory of qualified contractors referred to in 6.1.5.3

## 5 Qualification criteria

### 5.1 Administrative and legal matters

#### 5.1.1 Eligibility for qualification

5.1.1.1 All juridical forms and business enterprises officially recognized by the legislation of a country are eligible to apply for qualification.

5.1.1.2 Groupings without juridical evidence are not eligible to apply for qualification.

### 5.1.2 Mandatory information

For qualification purposes, the mandatory information set out below and in the application form in annex B must be supplied:

- the name of the contractor;
- the address of the Registered Head Office;
- telephone and fax number and e-mail address (if available) of the Registered Head Office;
- legal status of the contractor;
- the registration number of the contractor and the country in which it is registered;
- the VAT number of the contractor, if registered;
- confirmation of payment of taxes and social contributions<sup>1)</sup>;
- judicial or administrative statement<sup>1)</sup>.

### 5.1.3 Evidence of legal standing

All the matters regarding legal standing are mandatory and all applicants must satisfy all parts of them if they are to qualify.

An applicant is rejected if matters set out under the following headings apply:

#### 5.1.3.1 Bankruptcy

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If the applicant:

- is bankrupt, or [SIST ES 59004:2002](https://standards.iteh.ai/catalog/standards/sist/90216da4-f9e9-40d2-a317-706/sist-es-59004-2002)
- has suspended business activities, or <https://standards.iteh.ai/catalog/standards/sist/90216da4-f9e9-40d2-a317-706/sist-es-59004-2002>
- is in any analogous situation arising from a similar procedure under national laws and regulations, or,
- is the subject of proceedings for a declaration of bankruptcy or of any other similar proceedings under national laws or regulations.

#### 5.1.3.2 Professional conduct

If any of the legal representatives have been convicted of an offence concerning their professional conduct by a judgement which has the force of res judicata.

#### 5.1.3.3 Misrepresentation

If the applicant is guilty of serious misrepresentation in supplying the information used in the qualification process.

#### 5.1.3.4 Evidence of payment of social security contributions and taxes

If the applicant has not fulfilled obligations relating to the payment of social security contributions in accordance with the legal provisions of the country in which the contractor is established or those of the country of the contracting authority.

1) Where the country concerned does not issue such documents or certificates, they may be replaced by a declaration on oath or, in countries where there is no provision for declaration on oath, by a solemn declaration made by the person concerned before a juridical or administrative authority, a notary or competent professional or trade body.

If the applicant has not fulfilled obligations relating to the payment of taxes in accordance with the legal provisions of the country in which the contractor is established or those of the country of the contracting authority.

#### 5.1.3.5 Proof of legal standing

The Qualification Body will apply the provisions of Annex C regarding the source of proof of legal standing of any contractor applying for qualification.

## 5.2 Financial matters

### 5.2.1 Mandatory information

5.2.1.1 Evidence of the financial and economical standing of the applicant shall be furnished by the following references:

- a) Presentation of the applicant's balance sheet for the last three financial years: should they be unavailable, because the enterprise has been recently created, the applicant shall submit the balance sheet/s referring to its year/s of existence together with confirmation of the date when the company commenced trading.
- b) Profit and loss account and notes to the accounts for the last three financial years.

The annual accounts submitted to the Qualification Body shall be drawn up in accordance with the Reclassified Balance Sheet set out in Annex B.

5.2.1.2 The specification includes an annex containing general financial definitions (see Annex B). The information provided by the Applicant should comply with these definitions.

### 5.2.2 Financial and economical criteria

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5.2.2.1 The financial examination performed by the Qualification Body provides indicative information and no passmark exists.

NOTE No financial evaluation will be carried out at the Qualification stage and any such evaluation can be carried out at a later stage by contracting entities. e.g. at selection stage.

5.2.2.2 The Qualification Body shall establish indicators of the economical condition of the contractor according to the criteria considered under 5.2.3.

### 5.2.3 Financial and economical procedures

Basic criteria to be followed are:

5.2.3.1 Any Qualification Body in any country shall apply the same criteria. The relevant criteria are hereinafter indicated.

5.2.3.2 The mandatory data to be considered by the Qualification Body are the following items taken from the Reclassified Profit and Loss Accounts and the Balance Sheets of annex B.

- Net sales (Turnover) of the company (No. 6.01)<sup>2)</sup>;
- Net capital (Equity) (No. 4.15);
- Assets (Total Capital Invested) (No. 3.23);
- Permanent capital (No. 4.25).

2) The balance sheets submitted to the Qualification Body shall be drawn up according to annex B.

An applicant may provide additional information to support the information contained in his balance sheets and profit and loss accounts and reflected in the ratios described in 5.2.3.3 for example, an auditor's report, a bank guarantee or a parent company guarantee.

**5.2.3.3** The Qualification Body shall use the compulsory data described in 5.2.3.2 to establish the following ratios for the years for which accounts are provided (see 5.2.1.1).

First ratio: Net capital (Equity (No. 4.15)/Assets (Total Capital invested) (No. 3.23))

Second ratio: Net sales (Turnover (No. 6.01)/Assets (Total Capital invested) (No. 3.23))

NOTE Comment on the reclassification formats and meaning of the ratios is set out in Annex B.

**5.2.3.4** The data, Permanent Capital (No. 4.25), shall be provided in order to give further information when the Company has little or no relevant equity. (See also Annex B).

**5.2.3.5** Annual benchmarks for the pre-determined ratios (see 5.2.3.3) shall be produced on a national basis for use by Qualification Bodies.

### 5.3 Technical matters

The criteria listed in the following paragraphs, unless specifically indicated, are mandatory for the qualification.

#### 5.3.1 References for works already completed

References of contracts related to the category for which the qualification is requested carried out during the last five years and supported by documents indicating that the works have been completed, (see Annex B) must be submitted by the applicants.

Contractors will be required to supply references, in each work category, totalling a minimum value of 200 000 ECU over the previous five years. The value of each reference should not be less than 20 000 ECU (50 000 ECU for extension E2).

For applicants without past experience in the category, see 5.3.7, Start-up business.

Contractors can be considered qualified for "design", in a certain category, if they can show that:

- they have performed directly the activity of design in a minimum of 50% of the contracts referenced; and
- have personnel qualified as "designers", in accordance with 5.3.2.

#### 5.3.2 Criteria for personnel qualification per category

Tables 1 and 2 below show the minimum criteria for educational training and professional experience for a firm's staff employees, responsible for carrying out the works in a specific category. For qualification purposes, only permanent employees must be considered.

The items listed in table 1 under "Capacity" are indicating functions rather than specific job titles.

Table 2 has to be applied for any capacity named in table 1, equally and without differentiation depending on the type of capacity (I through IV).

Table 1

Type	Capacity
I	Project manager
II	Site supervisor
III	Technical team leaders, such as
	- electrical team leader
	- instrument and control team leader
	- functional and start-up test supervisor
	- mechanical team leader
IV	Designer

Table 2

Minimum level of vocational training and/or certificates or diplomas, equivalent with the following EU training level	Minimum number of years of experience in the category	Minimum number of years of experience in the capacity, in one of the following categories	
		in the category A or D	in the category B or C or extension E2
Level No.	Years	Years	Years
2	5	3	4
3	4	2	3
4 & 5	3	1	2

NOTE 1 See Annex D for definitions of EU training levels. Equivalence of levels needs to be completed by a competent European body.

NOTE 2 There are EC Directives giving basic rules of mutual recognition of educational and professional qualifications of individuals (64/427, 89/48 and 92/51); those Directives are established to give requirements for individuals in order to pursue a regulated profession in a host member state in a self-employed capacity or as an employed person. In addition a further Directive is currently being prepared on the subject of mutual recognition of professional qualifications.

#### EXAMPLE:

The minimum requirements for a "designer", working in category B, with diplomas equivalent to EU training level 2 are: five years of experience in any capacity in category B, of which four years experience in the capacity of "designer".

#### Extensions "E1" and "E2"

With regard to extension "E1", personnel of type "III" must show in addition to the requirements in table 2 at least one year of experience and/or appropriate training in the specific field of "special installations".

Extensions "E1" and "E2" can only be applied for in combination with one of the categories A through D (see also 4.1.5).

### 5.3.3 Minimum personnel required

A minimum number of one employee for each type of capacity (I, II, III, IV) is required, for each separate category, in which the contractor applies to be qualified.

Capacity IV is not required for contractors that do not want to be qualified for "design".

The name of one employee is allowed to appear on the list of one category for two different capacities, however he may only appear a total of three times on all the category lists together.

Applicants are encouraged to show more than the minimum required names on the list.

A calendar year during which the employee was involved during at least six months in activities in the category and/or in his capacity, may be counted as one year of experience.

Contractors must provide evidence that the cost of labour (directly employed labour) over the past three years is higher than 10% of the global turnover in works for the same period.

### 5.3.4 Evidence of technical capability of personnel

The contractor shall demonstrate evidence of the technical capability of each employee, according to the minimum personnel required as indicated in 5.3.3, and also in accordance with the minimum criteria for personnel qualification as indicated in 5.3.2.

He shall do so by providing the following information:

- For each category a separate list, showing the names of the minimum required personnel, the capacity type, the EU training level, the number of years of experience in the category and in the capacity. Applicants are encouraged to show more than the minimum required number of names in the list. [SIST ES 59004:2002](https://standards.iteh.ai/catalog/standards/sist/90216da4-9e9-40d2-a317-)
- A Professional Résumé (PR) for each employee on the above mentioned list.

The PR should list all relevant vocational diploma's and/or certificates, issued by official bodies recognized by the state. The minimum required EU Qualification level should be EU level 2. The equivalence of the diplomas and/or certificates with the EU levels 2, 3, 4, and 5, as well as the recognition of self-made personnel against these levels, is to be confirmed by an official national qualification authority.

The PR should give detailed information about the experience of the employee in the category and the capacities required.

Copies of diplomas and or certificates should be added.

### 5.3.5 Internal organization of the contractor

The contractor shall provide, for information only, the main structure of its organization.

Evidence should be provided of the existence of an organization for health and safety in accordance with EU legislation and relevant national health and safety legislation.

Evidence should be provided of the possession of certain European or national electrical standards (see Annex E for the European standards required for the various work categories).

### 5.3.6 Main technical equipment

The contractor shall provide, for information only, the list of tools and equipment available to him to carry out the works within the category for which he seeks the qualification.

### 5.3.7 Start-up business

If contractors are unable to meet the "past experience" criteria but meet the standards required in all other areas and still wish to work in a particular category in order to gain the necessary experience they will be classified as "S", as a "start-up contractor" in that particular category.

The time period for which a contractor can hold an "S" classification shall not exceed three years, during this period the contractor will be expected to demonstrate a track record of works within the particular category in accordance with 5.3.1. At the end or during this time period a contractor with a satisfactory track record can apply to move from "S" classification to full qualification.

Contractors who fail to produce evidence of execution of work within the period defined above will lose their "S" classification and will become unqualified in the category concerned.

A period of two years must elapse before they can reapply for qualification.

## 6 Requirements for qualification bodies

### 6.1 Qualification body

#### 6.1.1 General provisions

6.1.1.1 The policies and procedures under which the qualification body operates shall be non-discriminatory, and they shall be administered in a non-discriminatory manner. Procedures shall not be used to impede or inhibit access to qualification services by applicants other than as specified in this standard.

6.1.1.2 The qualification body shall make its services accessible to all applicants. There shall not be unreasonable financial or other conditions. Access shall not be conditional upon the size of the contractor or membership of any association or enrolment in a group, nor shall qualification be conditional upon the number of contractors already qualified.

6.1.1.3 The criteria against which an applicant is assessed shall be those outlined in this standard, supported by other referenced normative documents, if any, relevant to the function performed.

6.1.1.4 The qualification body shall confine its requirements, assessment and decision on qualification to those matters specifically related to the scope of the qualification being considered.

#### 6.1.2 Organization

6.1.2.1 The qualification body shall only operate in the work categories in which it has expertise, as set out in clause 4.

6.1.2.2 The structure of the qualification body shall be such as to give confidence in its qualification activities.

In particular, the qualification body shall

- a) be impartial and free from any commercial, financial and other pressures which might influence the results of the qualification process;
- b) be responsible for its decisions relating to the granting, maintaining, suspending and withdrawing of qualification and identify the management (committee, group or person) which has the overall responsibility for all activities directly or indirectly related to the qualification process;
- c) be a legal entity, or form part of a legal entity;