

## National Electrical Safety Board's regulations and general advice in English – 2017:2

**THIS IS NOT LEGAL/JUDICIAL TEXT.** This document contains a rough translation of National Electrical Safety Board's regulations. Its contents is not legal text and it should only be used for readers who wish to get a general understanding of the contents in the Swedish regulations concerning electrical safety and electromagnetic compatibility. The texts are not necessarily comprehensive, complete, accurate or up-to-date. For legal text - please use the link below.

**Section of legislation:** Electrical installation work

**Number:** ELSÄK-FS 2017:2

**Title:** The National Electrical Safety Board's regulations and general advice on electrical installation work

**Legal titel:** Elsäkerhetsverkets föreskrifter och allmänna råd (2017:2) om elinstallationsarbete

**Link to regulations:** <http://www.elsakerhetsverket.se/om-oss/lag-och-ratt/gallande-regler/Elsakerhetsverkets-foreskrifter-listade-i-nummerordning/elsak-fs-20172/>

## Chapter 1 General provisions

### Scope

**1 §** These regulations contain certain exemptions from requirements regarding the execution of electrical installation work set out in the Electrical Safety Act, and general advice concerning Section 4 of the Electrical Safety Act.

### Definitions and abbreviations

**2 §** The definitions and abbreviations used in the Electrical Safety Act and the Electrical Safety Ordinance shall have the same meaning in these regulations.

In these regulations terms are defined as follows:

<i>Electrical Safety Act</i>	the Electrical Safety Act (2016:732) or rules superseding it,
<i>Electrical Safety Ordinance</i>	the Electrical Safety Ordinance (2017:218) or rules superseding it,
<i>ELSÄK-FS 2008:1</i>	the National Electrical Safety Board's regulations and general advice (2008:1) on the execution of electrical installations or rules superseding them,
<i>connector</i>	various types of output, input, splice, connector, etc., and
<i>switch</i>	a device designed to disconnect and connect the current in one or more circuits.

## Chapter 2 Electrical installation work

1 § Requirements regarding the execution of electrical installation work are set out in Section 23–27 of the Electrical Safety Act.

The definition of electrical installation work is given in Section 4 of the Electrical Safety Act.

*General advice concerning Section 4 of the Electrical Safety Act*

### Execution of electrical installation

*Executing* an electrical installation involves the following

- The electrical safety properties of the electrical installation being implemented are established by
  - installing electrical material, or
  - connecting extraneous conducting parts to the electrical installation in order to ensure that the electrical installation will provide adequate safety from injury to persons or damage to property.

Electrical material means products and components that are intended to form part of an electrical installation and that conduct electricity or consume electrical energy, including the components that provide protection under the applicable provisions of Chapter 3 of ELSÄK-FS 2008:1

Electrical equipment, in the form of electrical material, that is permanently installed is part of the electrical installation after being installed. However, electrical equipment that only consumes electrical energy, e.g. light fittings and household appliances, do not form part of the electrical installation after permanent connection. In the case of such electrical equipment it is only the permanent connection and the disconnection that are electrical installation work.

Permanent connection or disconnection of electrical equipment is electrical installation work irrespective of whether it is done with tools or installation couplers.

Replacement of electrical equipment (material) that is permanently installed is electrical installation work.

Functional and protective equipotential bonding is electrical installation work.

It is only that part of the electrical equipment which only consumes electrical energy that is not part of the electrical installation after connection.

Repairing machines, light fittings and household appliances that are not part of the installation is not electrical installation work even if they are permanently connected when the repair takes place.

### **Modification and repair of an electrical installation**

In the case of modification or repair the starting point is an existing electrical installation. Work that involves execution as set out above is a modification or repair if the work relates to existing parts of an installation.

### **Permanent connection and disconnection of electrical equipment that consumes electrical energy**

Permanent connection and disconnection of electrical equipment that consumes electrical energy means that electrical equipment that consumes energy is connected to or disconnected from an electrical installation without executing, modifying or repairing a electrical installation.

It is not considered to be a permanent connection when plugs and socket outlets intended for household and similar purposes are used for the connection so that users are themselves able to connect electrical equipment to the mains since such a connection is not “permanent”.

## **Chapter 3 Exemptions from the requirements in the Electrical Safety Act**

### **Exemptions for certain types of electrical installation work**

**1 §** The following electrical installation work is not covered by Section 23–25 and 27 of the Electrical Safety Act provided that the electrical installation work is not executed in potentially explosive environments.

- 1 Replacing a switch for up to 16 A, 400 V housed in a dedicated enclosure or box.
- 2 Replacing a connector for up to 16 A, 400 V housed in a dedicated enclosure or box.
- 3 Replacing a light fitting in dry areas not presenting fire hazards in residential buildings.
- 4 Installing, modifying or repairing an electrical installation which is included in a protected low voltage circuit with a maximum nominal voltage of 50 V and a maximum power of 200 VA and a current limited by a fuse of up to 10 A or some other overcurrent protective device with equivalent protective effect.
- 5 Laying a heating cable or heating foil for protected low voltage with a maximum nominal voltage of 50 V.
- 6 Permanently connecting or disconnecting electrical equipment in a laboratory, test room, etc. if the equipment is used for instruction, testing, experimentation or supervision.

### **Exemptions for electrical installation work during education**

**2 §** Electrical installation work carried out for educational purposes as part of education or an internship is exempted from Section 23–25 and 27 of the Electrical Safety Act, but only if the electrical installation in question is solely used temporarily and for educational purposes.

### **Exemptions in certain exercise of public authority**

**3 §** The following electrical installation work is not covered by Section 23–25 and 27 of the Electrical Safety Act.

- 1 Incident commanders, personnel involved, committees or public authorities when they are acting according to Chapter 6, Section 2 of the Civil Protection Act (2003:778).
- 2 The Police Authority when they are acting according to Chapter 6, Section 3 of the Civil Protection Act (2003:778).
- 3 A public authority that has permission to use covert surveillance referred to in Chapter 27, Section 18–25 a of the Code of Judicial Procedure (1942:740) concerning the electrical installation work required to be able to use the covert investigative measures covered by their permit.
- 4 The Armed Forces when they are carrying out activities referred to in the following provisions:
  - Chapter 15, Section 2 of the Public Access to Information and Secrecy Act (2009:400),
  - the Act (1992:1403) on total defence and increased emergency preparedness,
  - the Emergency Management and Heightened Alert Ordinance (2006:942),
  - support arrangements, for example support for the police or rescue services/customs, the municipality in acute situations not covered by the Civil Protection Act,
  - Section 4–5 of the Protection Act (2010:305),
  - the Ordinance (2006:344) on Armed Forces' support to the police in combating terrorism, and
  - the Ordinance (1982:756) on interventions by Armed Forces in the event of violations of Swedish territory during peace and neutrality (the IKFN Ordinance).

### **Exemption**

**4 §** The possibility for the National Electrical Safety Board to grant an exemption from the requirements in Section 23–27 of the Electrical Safety Act is set out in Section 38 of the Electrical Safety Ordinance.

### **Entry into force**

These regulations enter into force on 1 July 2017.