

STANDARD SSG 4909E

# INSTRUCTIONS FOR EMC

SSG 4909E is an aid to meet the requirements of the EMC directive.

The purpose of the standard is to give instructions on how to handle the electrically disturbed environment in fixed installations, thereby providing increased operational accessibility, better electrical quality and fewer disruptions.



## Instructions for EMC

Information within brackets ([...]) in this document refers to local regulations.

### Scope

SSG 4909E is an aid to meet the requirements of the EMC directive. The purpose of the standard is to give instructions on how to handle the electrically disturbed environment in fixed installations, thereby providing increased operational accessibility, better electrical quality and fewer disruptions. The standard is directed towards

- owners and “elanläggningsansvariga” (managers of electrical installations)
- electrical installation personnel for compliance and maintenance technicians/maintenance personnel
- project managers and supervisors
- operations technicians
- designers
- consultants
- suppliers.

The EMC directive refers to different product standards. One of these (SS-EN 61800 – 3:2005) controls the PDS (Power Drive System, i.e. frequency inverters). It states that there should be an investigation prior to each installation of the inverters on IT networks and inverters with rated current of 400 A or more, to demonstrate that the converter will cause interference with any other equipment to its own or nearby facilities.

This investigation is extensive and costly to perform. By following the work process described in SSG 4909E, this investigation is done once for the entire plant, consequently avoiding large investigation costs for each individual inverter installation.

The EMC directive describes and demands how different electrical equipment can work together without disturbing each other. This applies not only if the industry via the network interferes with other network customers, but also documentation and organisational plans for how the internal EMC work is carried out within the facility.

Complying with the EMC directive is a long-term project focusing on both accessibility and compliance with regulatory requirements. The requirements and the operator's own need to comply with the directive can be summarised in the following paragraphs:

- **Regulatory requirements**

The Swedish Electrical Safety Agency imposes a requirement for a responsible person for documentation and execution of fixed installa-

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tions. In this guideline, we refer to the role of EMC Manager (see more in section 3.6 – ”Responsibilities and Roles”).

The Swedish Work Environment Authority imposes requirements on risk analysis for the use of machine equipment. It states that EU directives must be met.

— **Accessibility**

With the sharp increase in technological developments in the electrical and electronics field, EMC risks affecting the accessibility of our facilities, with inexplicable downtime and reduced performance as a result.

Complying with the directive is the same as quality-assuring your electrical installation, thereby creating the right conditions for building a facility with long-term high-quality accessibility.

### **Changes since the previous edition**

This edition differs from the previous edition in that:

- The material has been reworked to show a clear workflow for working with EMC. This release describes the entire work process and its different phases.
- The information previously contained in SSG 5151E is now included in this standard; consequently SSG 5151E is withdrawn.
- The standard has been updated according to the current template for SSG standards.