

1 Safety information



WARNING

The manufacturer can only provide a warranty for correct functioning of the SIMOREG CM converter and accept liability for any damage if the device is installed and started up by qualified personnel and the instructions in this manual are correctly observed. The converters are operated at high voltages.



Hazardous voltages and rotating parts (fans) are present in this electrical equipment during operation. Non-observance of the safety instructions can result in death, severe personal injury or substantial property damage.

Only qualified personnel should work on or around the equipment after first becoming thoroughly familiar with all warning and safety notices and maintenance procedures contained herein. The successful and safe operation of this equipment is dependent on proper handling, installation, operation and maintenance.

Definitions:

- QUALIFIED PERSONNEL

For the purpose of this Instruction Manual and product labels, a "Qualified person" is someone who is familiar with the installation, construction and operation of the equipment and the hazards involved. He or she must have the following qualifications:

1. Trained and authorized to energize, de-energize, clear, ground and tag circuits and equipment in accordance with established safety procedures.
2. Trained in the proper care and use of protective equipment in accordance with established safety procedures.
3. Trained in rendering first aid.

- DANGER

For the purpose of this Instruction Manual and product labels, "Danger" indicates that death, severe personal injury or substantial property damage will result if proper precautions are not taken.

- WARNING

For the purpose of this Instruction Manual and product labels, "Warning" indicates that death, severe personal injury or substantial property damage can result if proper precautions are not taken.

- CAUTION

For the purpose of this Instruction Manual and product labels, "Caution" indicates that minor personal injury or property damage can result if proper precautions are not taken.

- NOTE

For the purpose of this Instruction Manual, "Note" indicates information about the product or the respective part of the Instruction Manual which requires particular attention.

NOTE

These operating instructions do not purport to cover all details or variations in equipment, nor to provide for every possible contingency to be met in connection with installation, operation or maintenance.

Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the local Siemens Sales Office.

The contents of these operating instructions shall not become part or modify any prior or existing agreement, commitment or relationship. The Sales Contract contains the entire obligations of Siemens. The warranty contained in the contract between the parties is the sole warranty of Siemens. Any statements contained herein do not create new warranties or modify the existing warranty.

**DANGER**

Converters contain hazardous electrical voltages, Death, severe bodily injury or significant material damage can occur if the safety measures are not followed.

1. Only qualified personnel, who are knowledgeable about the converters and the provided information, can install, start up, operate, troubleshoot or repair the converters.
2. The converters must be installed in accordance with all relevant safety regulations (e.g. DIN VDE) as well as all other national or local regulations. Operational safety and reliability must be ensured by correct grounding, cable dimensioning and appropriate short-circuit protection.
3. All panels and doors must be kept closed during normal operation.
4. Before carrying out visual checks and maintenance work, ensure that the AC power supply is disconnected and locked out. Before the AC supply is disconnected, both converters and motors have hazardous voltage levels. Even when the converter contactor is open, hazardous voltages are still present.
5. When making measurements with the power supply switched on, electrical connections must not be touched under any circumstances. Remove all jewellery from wrists and fingers. Ensure that the test equipment is in good conditions and operationally safe.
6. When working on units which are switched on, stand on an insulating surface, i.e. ensure that you are not grounded.
7. Carefully follow the relevant instructions and observe all danger, warning and cautionary instructions.
8. This does not represent a full listing of all the measures necessary for safe operation of the equipment. If you require other information or if certain problems occur which are not handled in enough detail in the information provided in the Instruction Manual, please contact your local Siemens office.



**CAUTION****Electrostatically sensitive devices**

The converter contains electrostatically sensitive devices. These can easily be destroyed if they are not handled correctly. If, however, it is absolutely essential for you to work on electronic modules, please pay careful attention to the following instructions:

- Electronic modules (PCBs) should not be touched unless work has to be carried out on them.
- Before touching a PCB, the person carrying out the work must himself be electrostatically discharged. The simplest way of doing this is to touch an electrically conductive earthed object, e.g. socket outlet earth contact.
- PCBs must not be allowed to come into contact with electrically insulating materials – plastic foil, insulating table tops or clothing made of synthetic fibres –
- PCBs may only be set down or stored on electrically conducting surfaces.
- When carrying out soldering jobs on PCBs, make sure that the soldering tip has been earthed.
- PCBs and electronic components should generally be packed in electrically conducting containers (such as metallized-plastic boxes or metal cans) before being stored or shipped.
- If the use of non-conducting packing containers cannot be avoided, PCBs must be wrapped in a conducting material before being put in them. Examples of such materials include electrically conducting foam rubber or household aluminium foil.

For easy reference, the protective measures necessary when dealing with sensitive electronic components are illustrated in the sketches below.

a = Conductive flooring

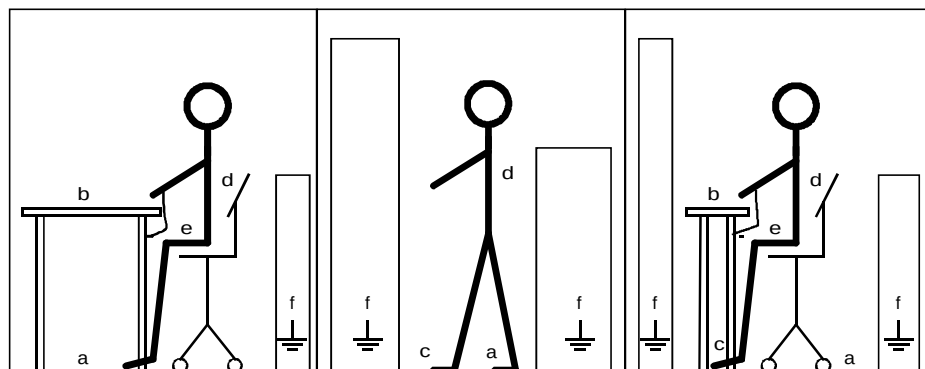
d = Anti-static overall

b = Anti-static table

e = Anti-static chain

c = Anti-static footwear

f = Earthing connections of cabinets



Seated workstation

Standing workstation

Standing/seated workstation

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The successful and safe operation of this equipment is dependent on proper handling, installation, operation and maintenance.

