

5 Installation



CAUTION

Failure to lift the converter in the correct manner can result in bodily injury and/or property damage.

The converter must be lifted using suitable equipment and under the instruction of appropriately qualified personnel.

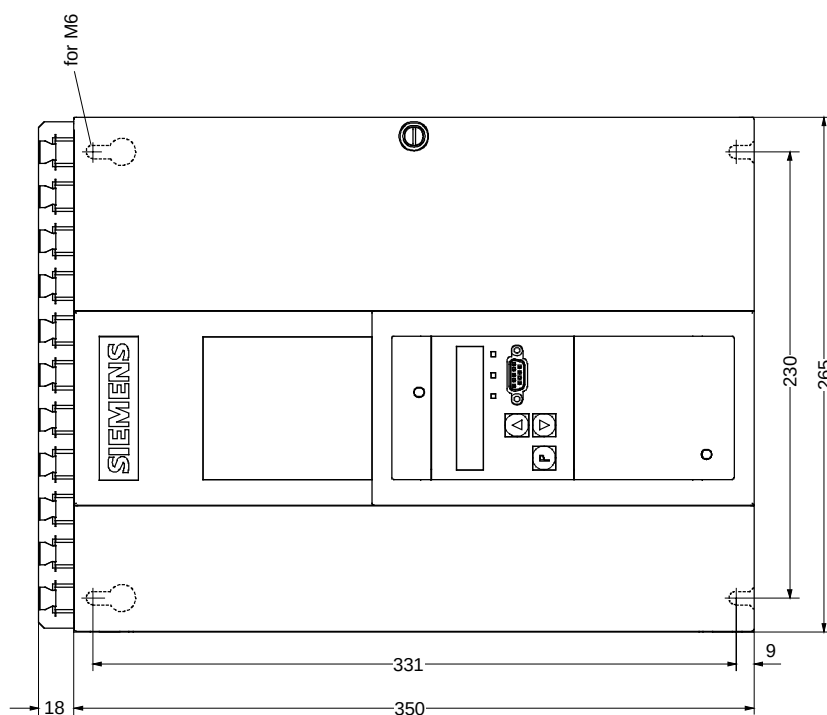
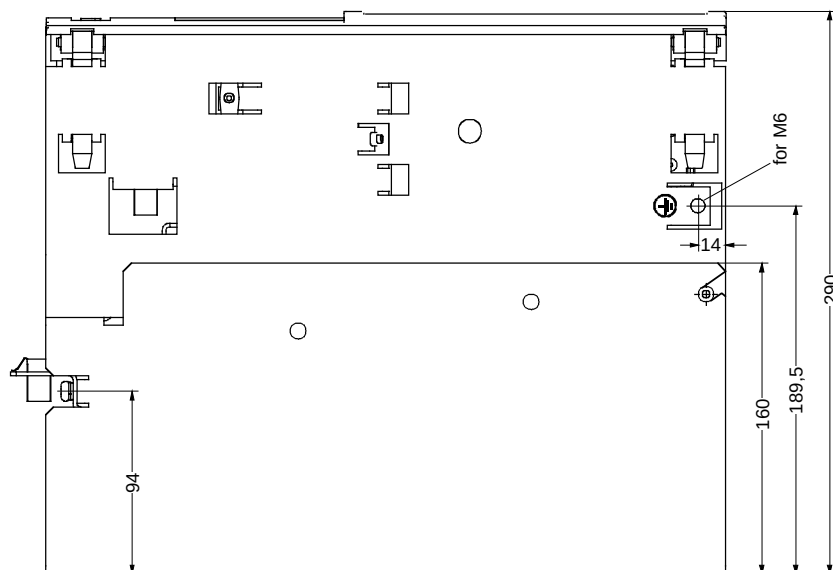


The user is responsible for installing the SIMOREG CM converter, the power section, the motor, transformer, as well as other equipment according to safety regulations (e.g. EN, DIN, VDE), as well as all other relevant national or local regulations regarding cable dimensioning and protection, grounding, isolating switch, overcurrent protection, etc.

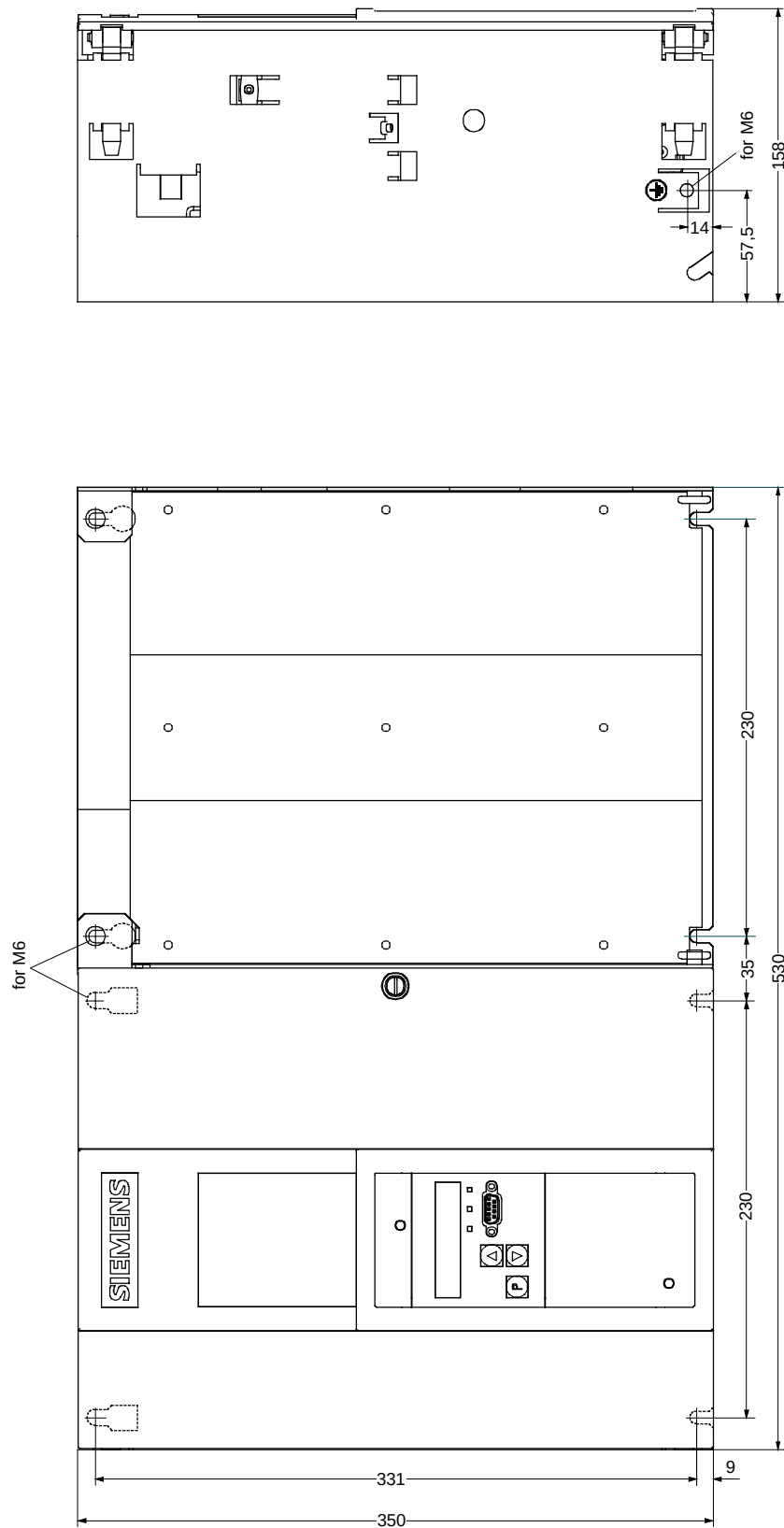
The converter must be installed in accordance with the relevant safety regulations (e.g. EN, DIN, VDE), as well as all other relevant national and local regulations. It must be ensured that the grounding, cable dimensioning and appropriate short-circuit protection have been implemented to guarantee operational safety and reliability..

5.1 Dimensions drawings

5.1.1 Converter components assembled (state as delivered)



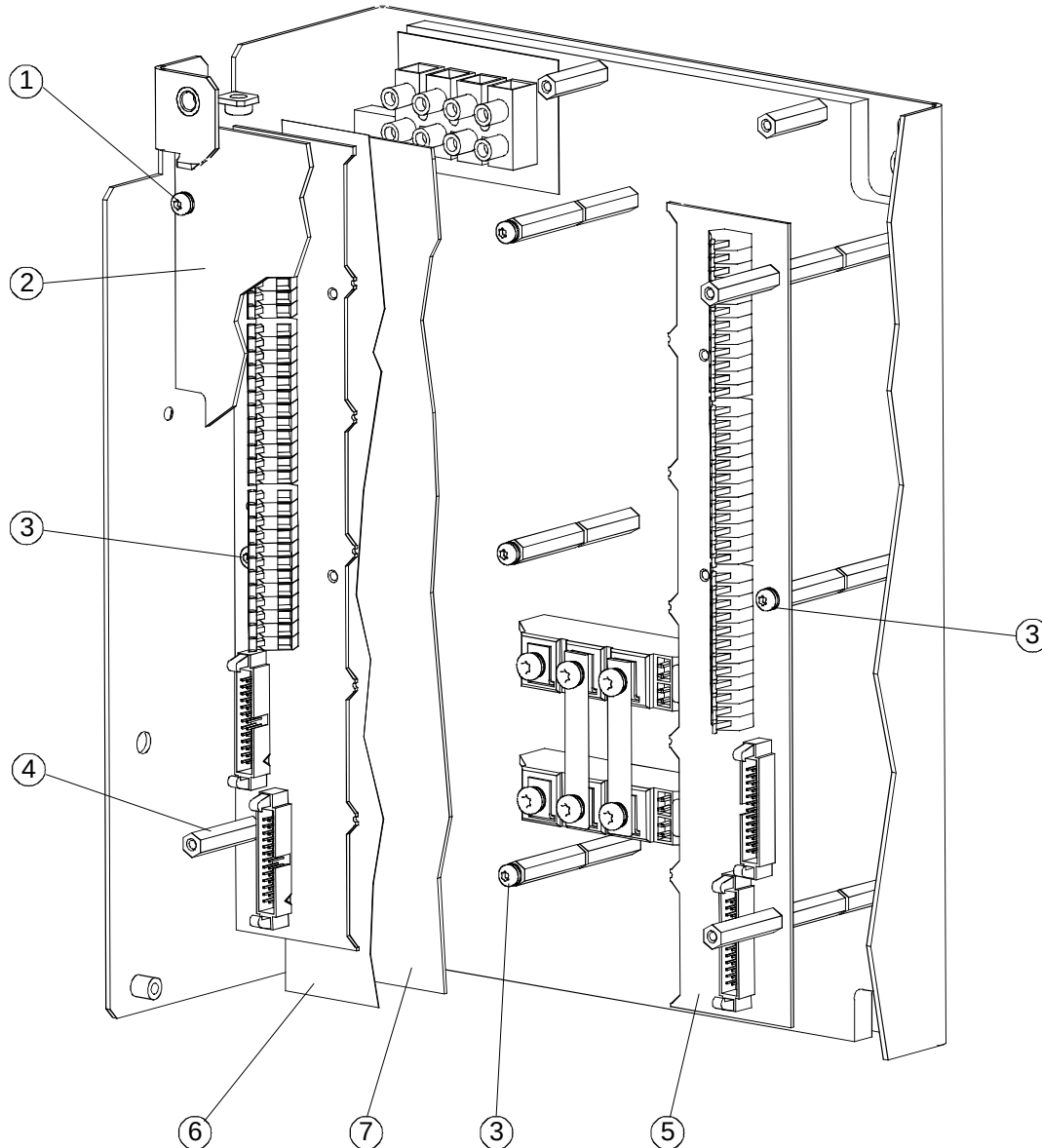
5.1.2 Converter components arranged side by side



5.2 Mounting/removal and division of modules

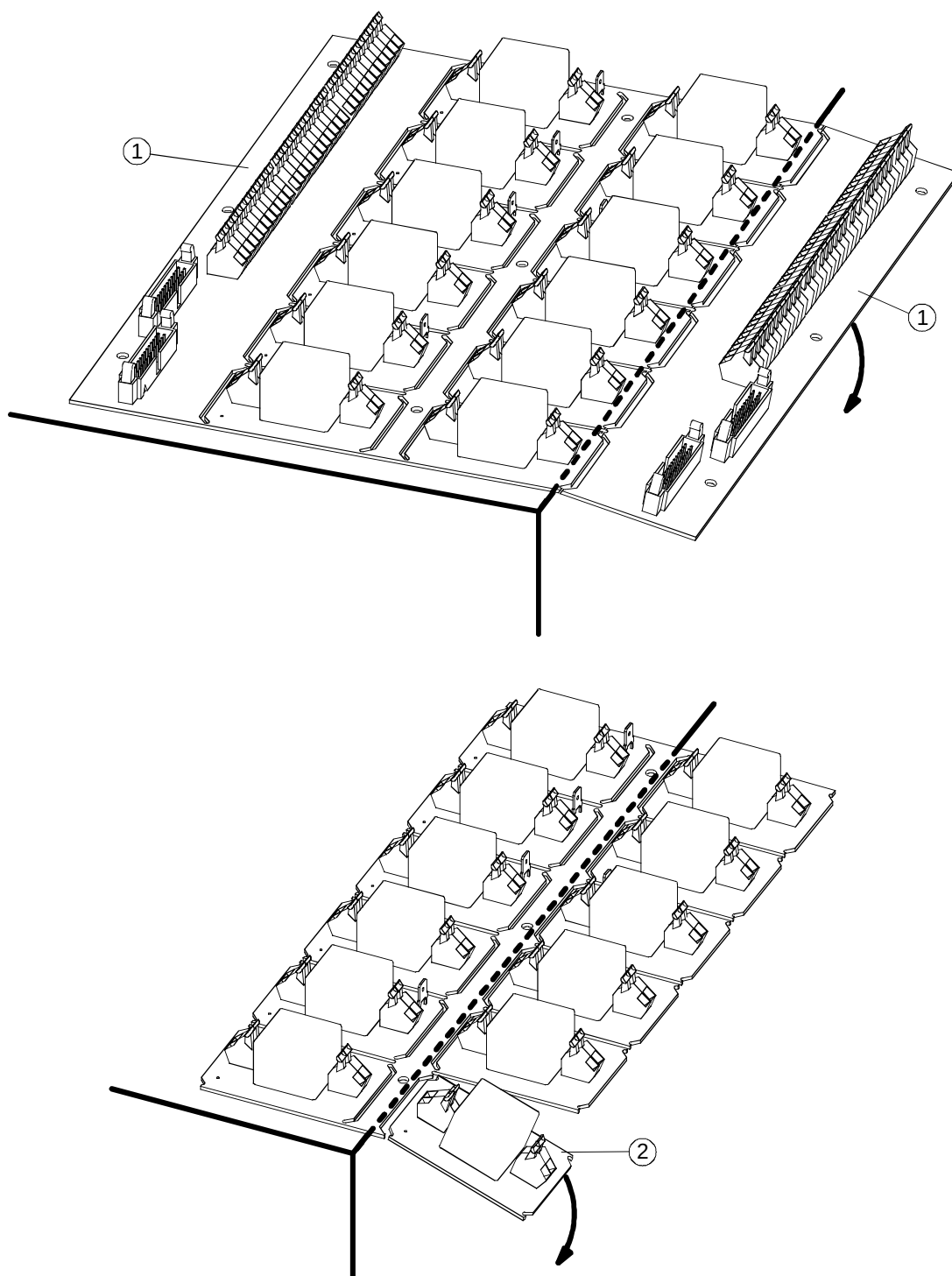
(see also Chapters 6.4 and 6.9)

5.2.1 Removal of module C98043-A7043



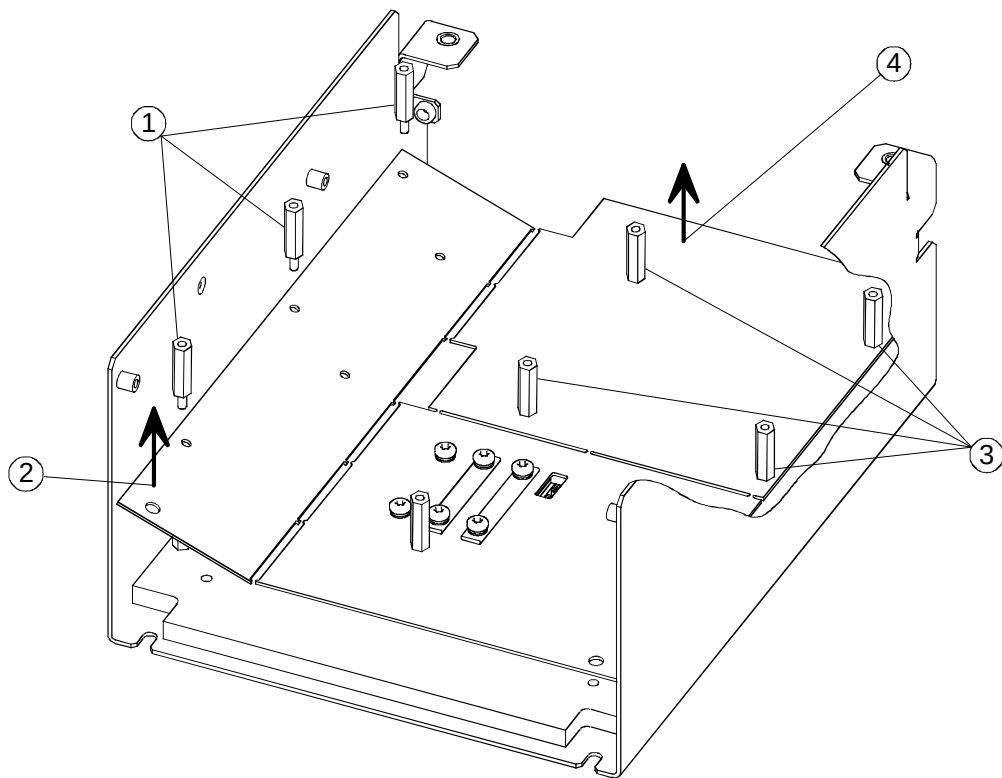
- Remove 4 Torx TX20 screws ① and take off cover ②.
- Remove 5 Torx TX20 screws ③ and 4 hexagon-head studs ④.
- Remove module C98043-A7043 ⑤ and divide (see Chapter 5.2.2).
- Remove the loosely attached insulation plate ⑥.
- Divide module C98043-A7044 ⑦ (see Chapter 5.2.3).
- See Chapter 5.2.4 for how to mount module C98043-A7043.

5.2.2 Dividing module C98043-A7043



- Remove cover and module C98043-A7043 (see Chapter 5.2.1).
- Break the two terminal parts ① across the table edge.
- Break control plates ② across the table edge.
- Mount the cover and the two terminal parts ① (see Chapter 5.2.4).

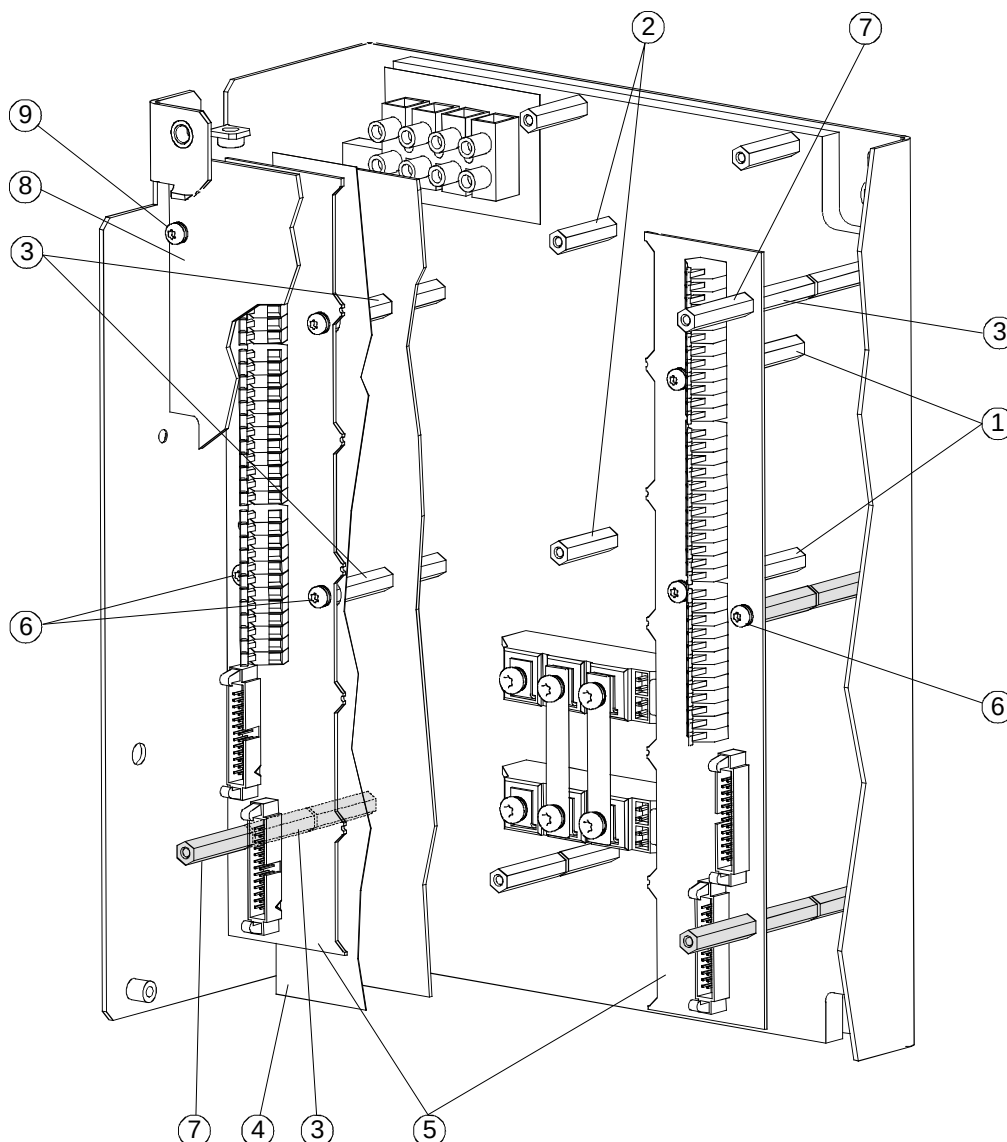
5.2.3 Dividing module C98043-A7044



- Remove cover and module C98043-A7043 (see Chapter 5.2.1)
- Remove the 3 hexagon-head studs ①.
- Break module part ② in the direction of the arrow.
- Remove the 4 hexagon-head studs ③.
- Break module part ④ in the direction of the arrow.

5.2.4 Mounting module C98043-A7043

The parts required are not part of the scope of supply, they are available as a “set of loose parts” under order No.: 6RY1707-0CM00.



WARNING

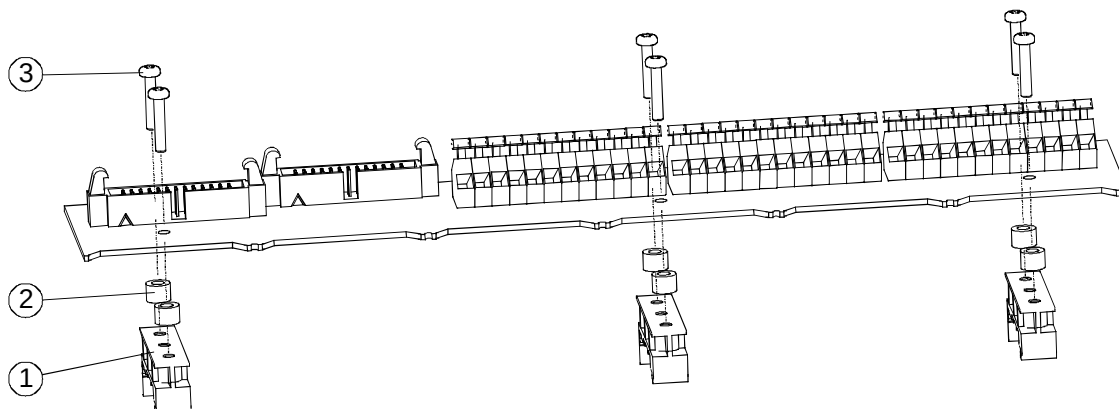
The hexagon-head studs shown in gray must be metal bolts, all other bolts must be non-conductive (danger of short circuit).

- Fit 4 hexagon-head studs (L=30mm) ①.
- The two hexagon-head studs ② are not required and can be removed.
- Screw 9 hexagon-head studs (L=35mm) ③ onto the fitted hexagon-head studs.
- Clip on insulation plate ④.
- Fix the two terminal parts ⑤ of module C98043-A7043 with 6 Torx TX20 screws ⑥ and 4 hexagon-head studs ⑦.
- Connect terminals and ribbon cable and fix cover ⑧ with 4 Torx TX20 screws ⑨.

5.2.5 External assembly of module parts

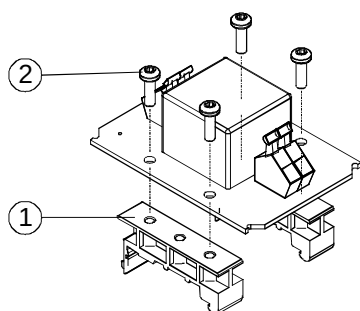
The parts required are not part of the scope of supply, they are available as a “set of loose parts” under order No.: 6RY1707-0CM00.

5.2.5.1 Terminal strip



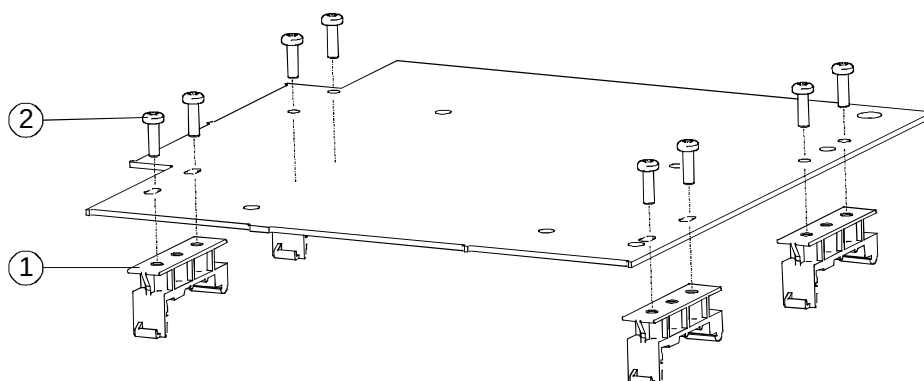
The 3 snap-on parts ① for DIN rail acc. to DIN EN50022-35x7.5 are mounted using distance rolls ② and M3x16 screws ③ on the terminal strip.

5.2.5.2 Firing transfer plates



The 2 snap-on parts ① for DIN rail acc. to DIN EN50022-35x7.5 are mounted with M3x8 screws ② on the control plates.

5.2.5.3 Fuse monitoring



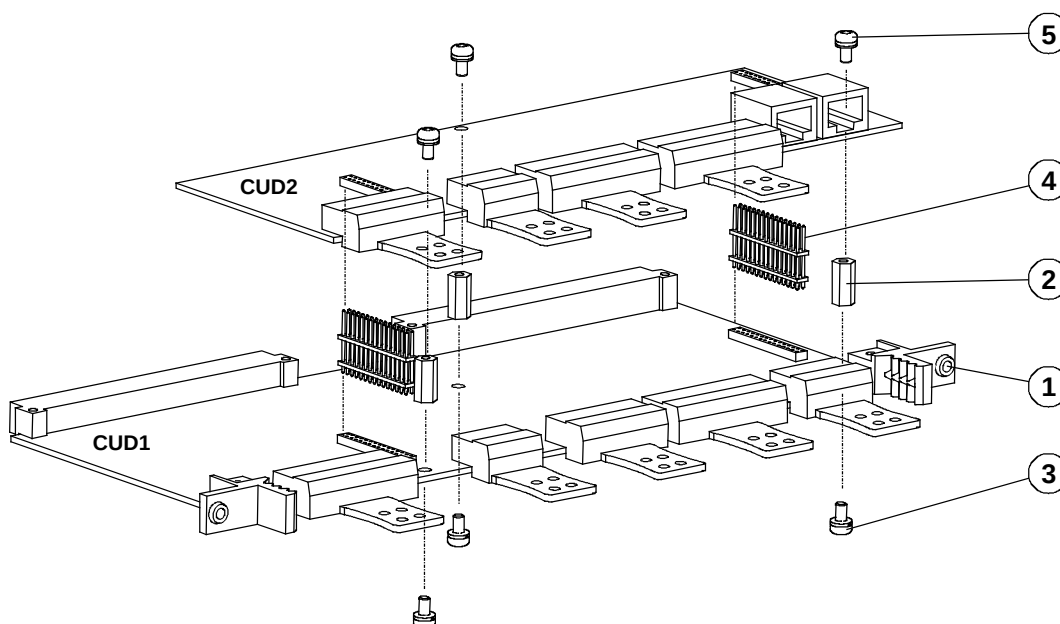
The 4 snap-on parts ① for DIN rail acc. to DIN EN50022-35x7.5 are mounted on the fuse monitoring with screws M3x8 ②.

5.2.5.4 Voltage acquisition

The voltage acquisition can be mounted externally using mounting housing UM 72 supplied by Phönix. This mounting housing must be ordered directly from Phönix.

5.3 Mounting options

5.3.1 Terminal expansion module CUD2



- Remove electronics board CUD1 from the electronics box by undoing the two fixing screws ①.
- Attach the 3 supplied hexagon-head studs at position ② with the supplied screws and mount fuse elements ③ on electronic board CUD1, and attach the two plug connectors ④. The two plug connectors must be positioned such that the short pin ends are inserted in the socket connectors of the CUD1 and the long pin ends in the socket connectors of the CUD2.
- Position board CUD2 in such a way that the two plug connectors ④ are properly contacted.
- Secure board CUD2 in position using the supplied screws and retaining elements ⑤.
- Insert electronics board CUD1 into electronics box and tighten up the two fixing screws ① again as instructed.

5.3.2 Optional supplementary boards



WARNING

Safe operation is dependent upon proper installation and start-up by qualified personnel under observance of all warnings contained in these operating instructions.



Boards must always be replaced by properly qualified personnel.

Boards must not be inserted or removed when the power supply is connected.

Failure to observe this warning can result in death, severe physical injury or substantial property damage.



CAUTION

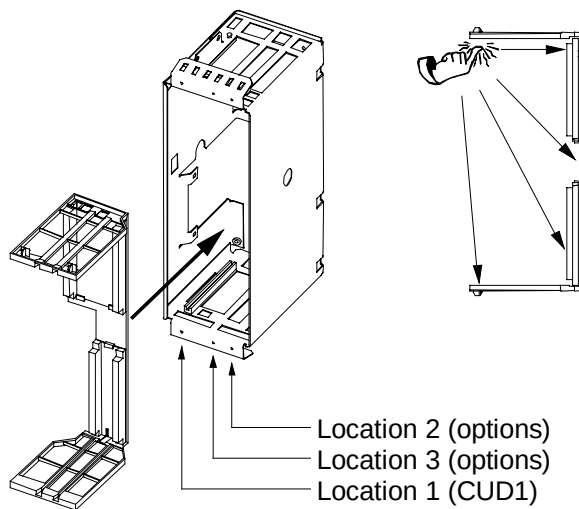
The boards contain ElectroStatic Discharge Sensitive Devices (ESDS). Before touching a board, make sure that your own body has been electrostatically discharged. The easiest way to do this is to touch a conductive, grounded object (e.g. bare metal part of cubicle) immediately beforehand).

5.3.2.1 Local bus adapter (LBA) for mounting optional supplementary boards

Optional supplementary boards can be installed only in conjunction with the LBA option. If an LBA is not already fitted in the SIMOREG converter, one must be installed in the electronics box to accommodate the optional board.

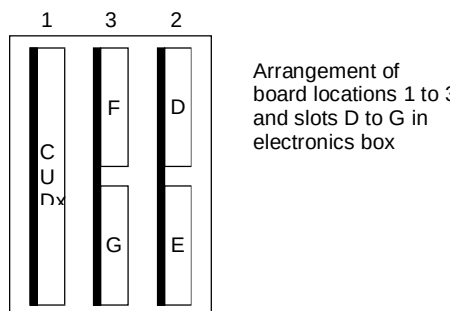
How to install an LBA local bus adapter in the electronics box:

- ◆ Undo the two fixing screws on the CUD1 board and pull board out by special handles.
- ◆ Push LBA bus extension into electronics box (see picture on right for position) until it engages.
- ◆ Insert CUD1 board in left-hand board location again and tighten fixing screws in handles.



5.3.2.2 Mounting of optional supplementary boards

Supplementary boards are inserted in the slots of the electronics box. Option **LBA** (local bus adapter, backplane wiring) is required to fit supplementary boards. The designations of board locations and slots are shown in the following diagram.



Supplementary boards may be inserted in any slots subject to one restriction, i.e. that board location 2 is filled before location 3.

NOTE

- ◆ A technology board must always be installed in board location 2 of the electronics box.
- ◆ If a technology board is used in conjunction with a communications board, then the communications board must be fitted in slot G (miniature-format boards CBP and CBC) or slot 3 (large-format boards CB1 and CB2).
- ◆ It is not possible to operate boards EB1, EB2, SLB and SBP in conjunction with a technology board.
- ◆ The data of large-format boards are always output under slot E or slot G, i.e. the software version of a technology board, for example, is displayed in r060.003.
- ◆ In addition to the LBA, miniature-format boards (CBP and CBC) also require an **ADB** (adapter board, support board). Due to their very compact physical dimensions, these boards must be inserted in an ADB before they can be installed in the electronics box.

No more than 2 supplementary boards of the same type may be installed in one converter (e.g. 2 EB1s).

For information about starting up supplementary boards, please refer to Section 7.7 "Starting up optional supplementary boards".

