Important safety guidelines

Large shielding measures with shielding material are no electrical equipment but “new construction parts” according to IEC 629-4-01 or IEC 61992-4-01. By connecting the materials to the potential equalization they are inherent part of the electrical system. Generally accepted rules of technology have to be respected.

The state of the technology differentiates between thermal equipotential bonding and functional equipotential bonding (FEB).

For the functional equipotential bonding (green/yellow cable) is a protective measure and ensures the absence of a fault. Sufficient fault current flows to operate the disconnection device (e.g. line circuit breaker). The functional equipotential bonding (transparent cable) has the function to reduce the emission of low-frequency electrical fields, i.e. prevents from leaking electrical field.

Grounding/easuring measures are only permitted in T, T5 and TT networks. Grounding measures must never be executed in network forms with combined PEN wiring!

A leak/age fault circuit breaker with ≤ 30 mA must be installed! DIN EN 50173-1:2005-06-10 applies to buildings with outer electrical field.

Proper grounding sequence

1. The FEB-balancing circuit has to be connected directly to the FEB-busbar without any cable, in the electric circuit distributor (fuse box).
2. In exceptional cases, the FEB-balancing circuit can be connected to a suitable protective earth conductor or balancing line. This example is shown in the technical data sheets. It is not necessary to connect to the PEN-wiring.
3. Connect the grounding/earthing measures to the protective conductor (PE) in the electric installation.

Grounding with our grounding plates and with conductive systems like electric shielded pipe systems or detached grounding rods which are not included in the materials, the steel toe caps, the building are of limited suitability. It is never possible to use them in new construction works with combined PEN wiring.

Our grounding system

Many of our grounding components can be connected to each other with our grounding cables to form a continuous ground contact safe in the tight 3.8 mm connectors.

For shielding plates, the connection is only possible with the overlapping positions. The crossing of the mating parts is recommended in the corresponding technical data sheet. After drying, apply a second coat under and around the plate. Let it dry.

Grounding plates Wall GW / Base

Grounding plate for shielding plates, fittings and receptacles for interior use.

Per semi of connected areas there is one grounding GW and GB required.

Mounting at an easily accessible point close to the final ground connection.

Drill 6 mm holes.

Make sure you drill the grounding holes with a hot-air gun to avoid mistakes.

Insert the screws and tighten them.

Connect cables together permanently!

Grounding plate Screw GS

Grounding plate for homes, factories, buildings, etc.

Drill the plates and connect the limited width under and on nettings, fleeces and nettings in the interior.

The glue on EB1 / EB3 is electrically non-conductive, therefore the EB1 / EB3 can be stuck only under and on the materials. Application under and on nettings, fleeces to connect the limited width of material. With an adhesive force of 3 N/cm, it sticks relatively poor on difficult undergrounds (e.g. plasterboards).

Use a primer first!

The glue on EB2 is electrically non-conductive, therefore the EB2 / EB3 can be stuck only under and on the materials. Application under and on nettings, fleeces to bridge cracks in the underground. With an adhesive force of 10 N/cm it sticks very well even on difficult undergrounds.

Grounding plate for CEE 7/7 and CEE 7/7 power sockets, see list below.

Open and remove the screw of the socket cover!

Insert the both plates and disassemble them.

Take a tile cutter or a knife (risk of injury) and pierce a small hole of 4 mm in the material.

Insert the plate with the screw from behind through the hole. Put on the front plate and screw it down.

Insert the plugs.

Grounding plate for CEE 7/4 and CEE 7/4 power sockets, see list below.

Open the both plates and disassemble them.

Take a tile cutter or a knife (risk of injury) and pierce a small hole of 4 mm in the material.

Insert the plate with the screw from behind through the hole. Put on the front plate and screw it down.

Insert the plugs.

Grounding plate GP

Grounding plate for CEE 7/4 and CEE 7/7 power sockets, see list below.

Open and remove the screw of the socket cover!

Insert the both plates and disassemble them.

Take a tile cutter or a knife (risk of injury) and pierce a small hole of 4 mm in the material.

Insert the plate with the screw from behind through the hole. Put on the front plate and screw it down.

Insert the plugs.

Grounding plate GD

Grounding plate for CEE 7/4 and CEE 7/7 power sockets, see list below.

Open the both plates and disassemble them.

Take a tile cutter or a knife (risk of injury) and pierce a small hole of 4 mm in the material.

Insert the plate with the screw from behind through the hole. Put on the front plate and screw it down.

Insert the plugs.

Grounding plate EE

Grounding plate for CEE 7/4 and CEE 7/7 power sockets, see list below.

Open and remove the screw of the socket cover!

Insert the both plates and disassemble them.

Take a tile cutter or a knife (risk of injury) and pierce a small hole of 4 mm in the material.

Insert the plate with the screw from behind through the hole. Put on the front plate and screw it down.

Insert the plugs.

Grounding plate GM

Grounding plate for CEE 7/4 and CEE 7/7 power sockets, see list below.

Open and remove the screw of the socket cover!

Insert the both plates and disassemble them.

Take a tile cutter or a knife (risk of injury) and pierce a small hole of 4 mm in the material.

Insert the plate with the screw from behind through the hole. Put on the front plate and screw it down.

Insert the plugs.

Grounding plate Magnet GM

Grounding plate for CEE 7/4 and CEE 7/7 power sockets, see list below.

Open and remove the screw of the socket cover!

Insert the both plates and disassemble them.

Take a tile cutter or a knife (risk of injury) and pierce a small hole of 4 mm in the material.

Insert the plate with the screw from behind through the hole. Put on the front plate and screw it down.

Insert the plugs.

Grounding plate Tube GT

Grounding plate for earthed installations (e.g. heating tubes).

Put the plate on an unisolated position of the heating tube and screw it down with both worm drive clamps. Insert the plugs on the covering cap, that serves as protection against an accidental unplugging of the cable.

Grounding plate Exterior GE

Grounding plate for shielding points for exterior use. Per semi of connected areas there are two GE required.

Mounting at an easily accessible point close to the final ground connection.

The underground has to be smoothed on 20 x 20 cm with a fine filler (fine mortar) that is suitable for your facade. It is important that the plate has an absolutely plane underground for a good contact to the shielding paint. Let the fine filler dry.

Drill 6 mm holes.

Make sure you drill the grounding holes with a hot-air gun to avoid mistakes.

Insert the plugs and tighten them.

Paint the area with waterproof-resistant facades paints as recommended in the corresponding technical data sheet.

The grounding of facades is included in the potential equalization of which the lightning protection systems are connected to as systems.

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