SF₆ insulated compact switchgear SafePlus
External Busbar
Installation and operating instructions
1. Installing the modules or units

1. Check the floor before installing the module/unit. Deviation shall not be more than 2 mm each meter.

2. Start to install one module or unit. Remove the dead-end. (The switchgear must not be energized). If the switchgear is delivered with a busbar cover this must be removed before the installation continues.

3. The next module/unit to be connected are placed next to the first one and the distance is decided with the distance plate and the distance piece between the sidewalls.
2. Assembly of the screened cross- and end-adapter. Screened bus bar.
For SF6 insulated switchgears with metal housing

1. Contact Piece
2. End-adapter
3. Cross-adapter
4. Busbar
5. Covering cap
6. Bushing
3. Endadapter and crossadapter parts

1. Contact piece
2. End-adapter
3. Cross-adapter
4. Busbar
5. Covering cap
6. Bushing
7. Conductive layer
8. Threaded bolt
9. Contact shells
10. Tightening washer
11. Nut
12. Insulating plug
13. Cable tie

4. Installation

1. Screw threaded bolt manually into the bushing until stop. Then tighten to 10Nm torque. The threaded bolt must project from the bushing 79±2mm. (Photos 1-3)
2. Clean contact shells and adapter (area "A") and coat with assembling paste. Clean the busbar (area "C") and coat with assembling paste.

Place contact shells together (end-adapters: additionally use the contact piece) and slide the greased busbar into the middle of the adapter.

The drills of the contact shells have to fit with the threaded pin.

The adapter must overlap the black, conductive layer of the busbar.

(Photos 4-7)

3. Clean adapter and bushing (area "B") and coat with assembling paste. Slide the adapter onto the bushing. Screw together threaded bolt with tightening washer and nut, torque 50 Nm. (Photos 8-13)
4. Clean adapter and insulating plug (area “D”) and coat with assembling paste. Push insulating plug (key size 19) together with a clean cable tie (see page 4 no. photo 13) (to ventilate) into the adapter and screw lightly together.

Pull out cable tie, unscrew insulating plug approx. 1 1/2 turns and tighten insulating plug to a torque of 30 Nm.

(Photos 14-18)

5. Fix covering cap to the adapter casing (Photo 19)

6. Connect earthing cable lugs to every adapter. (Photos 20-22)
5. Protection cover.

A cover for protection of the external busbar can be delivered as an option.
6. Adding one module /cubicle to already installed switchgear with external busbar.

If the switchgear to extend already have an external busbar, it is necessary to remove the adapters on the two nearest modules.
After this the new module can be placed next to the existing one and the busbar can be extended.

It is necessary to use the existing endadapter on the new module and use the new crossadapter on the second last module. Follow the instruction when the adapters are mounted again on the existing modules.