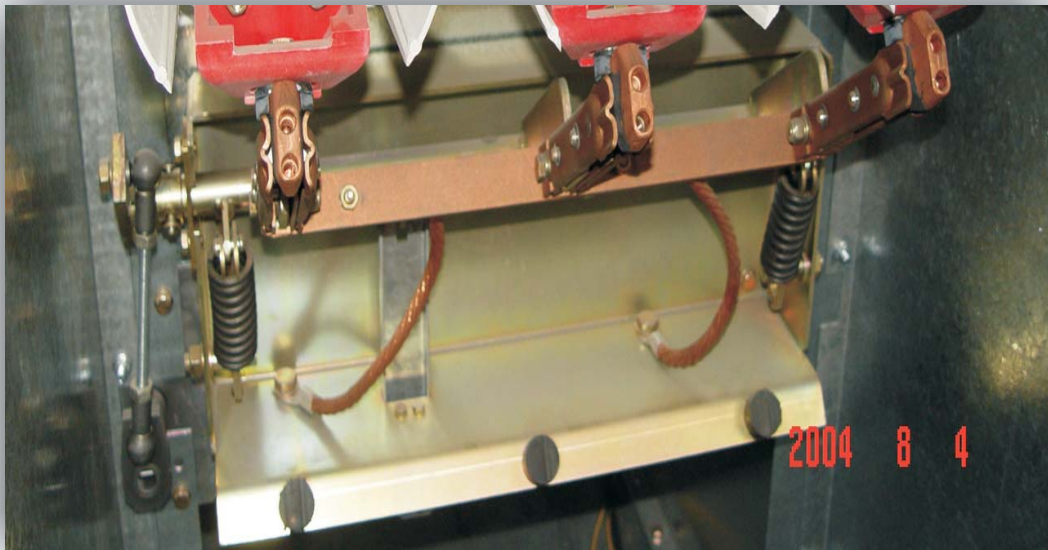


Earthing switch

12kv , 24kv

Ek6 Catalogue




Rasel Tableau Power Distribution

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Your safety first

That's why our instruction manual begins with these recommendations:

- ¥ Only install switchgear and/or switchboards in enclosed rooms suitable for electrical equipment.
- ¥ Ensure that installation, operation and maintenance are carried out by specialist electricians only.
- ¥ Comply in full with the legally recognized standards(DIN VDE / IEC), the connection conditions of the local electrical utility and the applicable safety at work regulations.
- ¥ Observe the relevant information in the instruction manual for all actions involving switchgear and switchboards.
- ¥  Danger!

Pay special attention to the hazard notes in the instruction manual marked with this warning symbol.
- ¥ Make sure that under operation condition of the switchgear or switchboard the specified data are not exceeded.
- ¥ Keep the instruction manual accessible to all persons concerned with installation, operation and maintenance.
- ¥ The user's personnel are to act responsibly in all matters affecting safety at work and the correct handling of the switchgear.



If you have any further questions on this instruction manual, the members of our field organization will be pleased to provide the required information.

General

Earthing switches of series EK6 are determined for indoor installation and conform to the requirements of VDE 0670 part 2 and IEC publication 60129. They are fitted with snap-action operating mechanisms for positive high-speed closing and sufficiently dimensioned to conduct the rated short-circuit making current when closed under load. The speed of the snap-action closing operation is independent controls.

The earthing switches are supplied as kits with a pre-assembled active part and corresponding earthing contacts supplied loose. Correct installation of these parts in a switchgear panel results in a functioning earthing switch.

Routine tests to VDE 0670, Part 2 or IEC 60129 arc to be carried out at site accordingly.

Earthing switches

Each panel shall be equipped with a cable earthing switch to earth power cables.

Bus metering and bus section panel shall be equipped with a busbar earthing switch to earth main bus.

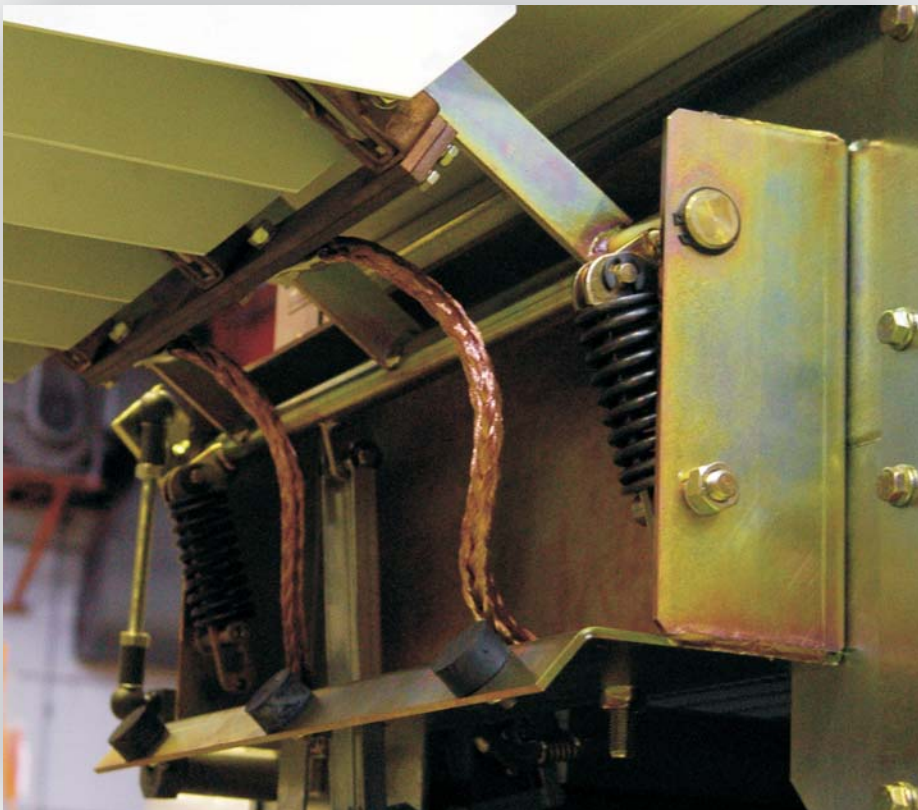
The earth switch shall have fault make capacity and can withstand the short circuit current.

Earthing switch shall be interlocked and manually operated from the front of the switchboard.

It shall be possible to observe earth switch blade via viewing window on panel front for operator safety.

Earth switch operations can be prevented by means of padlocks.

Standards and Reference Documentation for Switch disconnectors is 60265-1



Structure and function

Earthing switches of series EK6 have three pairs of earthing blades which are located on the operating shaft and are freely movable. The pairs of earthing blades are electrically connected to each other by a short-circuiting bridge and to earth potential at the bearing brackets by two stranded copper conductors. Driver levers and toggle springs located between the bearing brackets are used to transmit the force during the switching process. Fixing the active part on a torsionally rigid switchgear panel wall or cross-beam provides it with the necessary stability.

The earthing contacts designed to suit the relevant switch type are to be bolted to the conductor bars supported on suitable insulating parts, e.g. pintype insulators or current transformers, on the opposite side and parallel to each other, and the position adjusted until it conforms to that shown in the dimensional drawings.

The earthing switch has a snap action closing mechanism which functions independently of the rotation of the drive shaft. The switching speed and torque achieved in this process are independent of the actions of the operating mechanism.

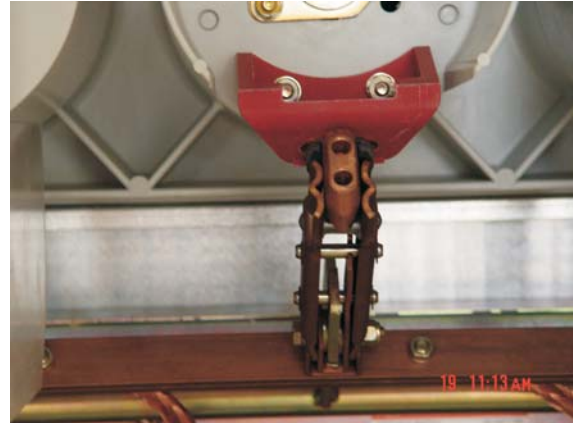
In the opening process, in contrast, the toggle springs have no effect on the speed of contact separation.

A ring lever or suitable manual or motorized operating mechanism with the necessary torque for the type of switch and an operating angle 90° can be fitted for operation of the switch.

Note:

Always open earthing switches by turning until the stop is reached.

The earthing switches can also be fitted with an auxiliary switch for annunciation purposes.



Maintenance

Closing of the switch several times under load conditions (maximum loading two closing operations at 100 % of the rated short-circuit making current) makes inspection and possibly maintenance necessary. The electrical and mechanical functions of the switch must not be adversely affected, and only slight contact welding is permissible. The pairs of earthing blades and the earthing contacts should be replaced if necessary.

Otherwise, it is advisable to carry out inspection and maintenance of the earthing switches at appropriate intervals together with the switchboard, particularly in exceptional operating conditions and/or under adverse environmental influences such as pollution and aggressive air:

- ✘ Check whether the operating mechanism functions smoothly and easily.
- ✘ Carry out general visual examination for the condition of mechanical fasteners, dirt, moisture and corrosion.
- ✘ Remove any dust deposits on insulating parts with a dry, non-fraying cloth (do not use cleaning wool).
- ✘ Regrease the mechanically movable parts and contacts)applying grease thinly(using Isoflex



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