INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

GENERAL SAFETY INSTRUCTIONS

Ensure that people are not exposed to danger during the inspection and testing works and no damage is caused to property or installed equipment.

The main supply must be switched off prior to the start of maintenance works, and the supply must be disconnected until the works are finished.

Visual checking is to be performed before testing, and as a rule, the whole installation must be dead.

Depending on the place of use the short-circuit current in low-voltage switchboard may be very high. Depending on tripping times and selectivity, the short-circuit may last long.

Short-circuit/arc fault can cause serious damage to people and property. That is why it is extremenly important to use isolated tools and verified measuring gauges during the commissioning works.

If required, restrictions due to non-isolated live parts, are to be taken into consideration.

If measurings are performed in places without protection against contact using portable gauges or gauges with portable testing wires, measurements can be performed only by skilled specialists.

Use adequate and safe testing gauges for measurings. They must be verified before measuring.

Warning labels are to be placed where necessary during the works and operation. The labels must meet applicable European national and international standards.

Works on dead switchboard

Electrical works must always, as a rule, be performed on dead equipment.

The electric equipment is dead, if the following procedures have been performed before the start of works:

- the supply voltage is disconnected reliably from all directions
- switching on of supply is reliably prevented during the works
- a reliable gauge is used to verify that the object is dead
- if required, temporary earthing is used (as a rule, not required, if the rated current of switchboard does not exceed 1000 A)
- live parts of electric equipment near the object are isolated reliably from the working area

Working area means an area, where works are performed, or to which can be reached with tools and analogous accessories.
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Procedures prior to connection of supply

- check the reliability of the voltage probe to be used
- check the point of disconnection of supply for a case of emergency
- open
  - all section switches
  - switch-fuses
  - circuit-breakers
  - MCBs
- install fuses, if cables have been connected
- carry out insulation resistance measuring
- if required, fix warning labels to live switchboard parts

Connection of supply to the main switchboard

- place warning labels “Caution - live switchboard” or analogous
- switch the voltage on to the switchboard
- verify or measure the voltage in a reliable manner
- check the phase sequence for its adequacy
- if required, connect the voltage to the control circuit
- measure the correctness and voltage level
- check in drawings that the voltage is not by mistake connected to places where other people are working
- check the automatic disconnection of supply
- check that all protections against contact are adequately placed
- check that all doors and covers are closed and locked